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The American University Graduate School Bulletin

1956-59



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- The Bulletin of The Undergraduate College**
- The Bulletin of The School of Business Administration**
- The Bulletin of The Washington College of Law**

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THE AMERICAN UNIVERSITY

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Graduate School Bulletin CATALOG ISSUE 1956-1959

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1956

JULY							AUGUST							SEPTEMBER						
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1957

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1958

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JULY							AUGUST							SEPTEMBER						
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OCTOBER							NOVEMBER							DECEMBER						
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1959

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APRIL							MAY							JUNE						
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26	27	28	29	30			24	25	26	27	28	29	30	28	29	30				

ACADEMIC CALENDAR 1956-59

FALL SESSION

1956-57

1957-58

1958-59

Classes begin	Thursday, September 20	Thursday, September 19	Monday, September 22
Final date for removal of incomplete grades for previous Spring session	Monday, October 1	Tuesday, October 1	Wednesday, October 1
Final date for submitting applications for Fall comprehensive examinations	Monday, October 8	Tuesday, October 8	Wednesday, October 8
Final date for submitting to departmental chairmen thesis and dissertation proposals for next commencement	Monday, October 15	Tuesday, October 15	Wednesday, October 15
Final date for removal of incomplete grades for previous Summer session	Thursday, November 1	Friday, November 1	Monday, November 3
Final date for applications for degrees to be awarded at next Commencement	Thursday, November 1	Friday, November 1	Monday, November 3
Veterans Day holiday	Monday, November 12	Monday, November 11	Tuesday, November 11
Thanksgiving holidays	Thursday, November 22-Saturday, November 24	Thursday, November 21-Saturday, November 23	Thursday, November 20-Saturday, November 22
Final date for approval by the Graduate Council of thesis and dissertation proposals for next commencement	Wednesday, December 5	Wednesday, December 4	Wednesday, December 3
Fall comprehensive examinations	Tuesday-Friday, December 4-14	Tuesday-Friday, December 3-13	Tuesday-Friday, December 2-12
Final date for submitting applications for graduate tool examinations	Friday, December 21	Friday, December 20	Friday, December 19
Last meeting of classes before Christmas vacation	Saturday, December 22	Saturday, December 21	Saturday, December 20
Christmas vacation	Monday, December 24-Saturday, January 5	Monday, December 23-Saturday, January 4	Monday, December 22-Monday, January 5
Classes resume	Monday, January 7	Monday, January 6	Tuesday, January 6
Graduate Tool requirement examinations	Monday-Saturday, January 14-19	Monday-Saturday, January 13-18	Monday-Saturday, January 12-17
Final examinations	Tuesday-Monday, January 22-28	Tuesday-Monday, January 21-27	Monday-Saturday, January 26-31 (except for Monday and Wednesday evening classes which will have final examinations on January 19 and 21)

SPRING SESSION

1957

1958

1959

Classes begin	Thursday, February 7	Friday, February 7	Monday, February 9
Final date for submitting applications for the Spring comprehensive examinations	Monday, February 11	Tuesday, February 11	Wednesday, February 11
Washington's Birthday holiday(s)	Friday-Saturday, February 22-23	Saturday, February 22	Monday, February 23 (except for evening classes, which will meet as usual)
Founders Day	Sunday, February 24	Monday, February 24 (not a holiday)	Tuesday, February 24 (not a holiday)
Final date for submitting required copies of theses, case studies, and dissertations to departmental chairmen for examination purposes	Friday, March 15	Friday, March 14	Monday, March 16
Final date for removal of incomplete grades for the previous Fall session	Monday, April 1	Monday, April 7	Saturday, April 4
Last meeting of classes before Spring vacation	Saturday, April 13	Saturday, March 29	Saturday, March 28
Spring vacation	Monday-Saturday, April 15-20	Monday, March 31-Saturday, April 5	Monday, March 30-Friday, April 3
Classes resume	Monday, April 22	Monday, April 7	Saturday, April 4
Spring comprehensive examinations	Tuesday, April 23-Friday, May 3	Tuesday, April 22-Friday, May 2	Tuesday-Friday, April 21-May 1
Final date for oral examinations on theses and dissertations for advanced degrees to be conferred at next commencement	Friday, April 26	Friday, April 25	Friday, April 24
Final date for filing applications for Spring Graduate tool examinations	Friday, April 26	Friday, April 25	Friday, April 24
Spring Graduate tool examinations	Monday-Saturday, May 13-18	Monday-Saturday, May 12-17	Monday-Saturday, May 11-16
Final date for filing with advisory committee, for final reading and signature, required number of theses, case studies, and dissertations	Monday, May 13	Monday, May 12	Monday, May 11
Final date for filing with departmental chairmen, for deposit in Registrar's Office required number of copies of theses, case studies, and dissertations (original signed by the advisory committee) with abstracts of theses and dissertations	Monday, May 20	Monday, May 19	Monday, May 18
Final examinations in Spring session classes for candidates for degrees at next commencement, except at the Washington College of Law	Wednesday-Friday, May 22-24	Wednesday-Friday, May 21-23	Wednesday-Friday, May 20-22
Memorial Day holiday	Thursday, May 30	Friday, May 30	Saturday, May 30
Final examinations, except at the Washington College of Law	Monday-Saturday, June 3-8	Monday-Saturday, June 2-7	Monday-Saturday, June 1-6
Commencement	Sunday, June 9	Sunday, June 8	Sunday, June 7

Administrative Officers of the University

HURST R. ANDERSON, B.A., M.A., LL.D., L.H.D.....	<i>President of the University</i>
DONALD DERBY, B.A., M.A., Ph.D.....	<i>Dean of Administration</i>
RALPH C. JOHN, B.A., S.T.B., S.T.M., Ph.D.....	<i>Dean of Students</i>
ERNST POSNER, Ph.D.....	<i>Dean of the Graduate School</i>
NATHAN A. BAILY, B.S.S., M.A., Ph.D..	<i>Dean of the School of Business Administration</i>
HAROLD E. DAVIS, B.A., M.A., Ph.D.....	<i>Dean of the Undergraduate College</i>
RICHARD BRAY, B.A., M.A....	<i>Dean of the School of Social Sciences and Public Affairs</i>
JOHN S. MYERS, B.A., LL.B.....	<i>Acting Dean of the Washington College of Law</i>
AUSTIN VAN DER SLICE, B.A., M.A., Ph.D.	<i>Associate Dean of the Undergraduate College</i>
HAROLD B. WESS, B.S....	<i>Director of Program of the School of Business Administration</i>
ERNST CORRELL, Dr. oec. publ.....	<i>Adviser to Foreign Students</i>
STAFFORD H. CASSELL, B.A., B.S., M.S.....	<i>Assistant to the President</i>
WILLIAM O. NICHOLLS, B.A., M.B.A.....	<i>Treasurer of the University</i>
JOHN WAKEFIELD, B.S.....	<i>Director of Admissions</i>
HAZEL FEAGENS, B.A., B.E., M.A.....	<i>University Registrar</i>
ANNE JENSEN, B.S. in L.S.....	<i>University Librarian</i>

The Graduate School

The American University was established as an institution devoted exclusively to graduate study and research. As the heir to this basic tradition, the Graduate School has enjoyed a unique success in meeting the challenge of service at the highest academic level in the nation's capital and in training men and women for outstanding positions in national, international, and business affairs as well as for the academic world. Its reputation as one of the country's dynamic graduate institutions rests firmly on the strength of its faculty, on a program developed to take advantage of the research facilities of the capital city, and on a student body drawn from leading universities in the United States and in foreign countries. In the classroom the graduate student at The American University meets the members of a distinguished faculty and leading experts from government and business who deal with the complex problems of modern society and introduce the student to the latest developments in their fields of research. Because of the small size of classes, the student enjoys close personal relationships with his instructors and with his fellow students, many of whom hold positions of responsibility and contribute materially to the level of classroom discussion.

Degree programs are designed to make optimum use of the manifold intellectual resources of the nation's capital. They include seminars and opportunities for systematic reading and research and thus give the graduate student a considerable degree of freedom in pursuing his interests and in acquiring experience in research. Research may be conducted under the joint auspices of the Graduate School and one of the many agencies or institutions of Washington that through the years have cooperated effectively with the University, making available their rich stores of documentation and their highly advanced techniques.

For almost two decades the Graduate School concentrated its resources in the fields of the social sciences, stressing the areas of public administration and international relations as well as political, social, and economic theory, and their practical applications to the everyday problems of government. More recently the School has broadened its objectives by providing degree programs in art, business administration, mathematics, biology, chemistry, education, English, and music. In doing so it has begun to carry out more fully the mandates imposed upon it by the University's charter.

Faculty of the Graduate School

PROFESSORS

- ALDRIDGE, MARY H. (1955), B.S., Georgia; M.A., Duke; Ph.D., Georgetown. *Associate Professor of Chemistry.*
- ALLEN, EDWARD L., B.S., Columbia; M.A., Ph.D., American. *Adjunct Professor of Economics.*
- ALPERT, HARRY, A.B., College of the City of New York; M.A., Ph.D., Columbia. *Adjunct Professor of Sociology.*
- ANTOSIEWICZ, HENRY (1952), Ph.D., Vienna. *Adjunct Professor of Mathematics.*
- BAILY, NATHAN A. (1946), B.S.S., College of the City of New York; M.A., Ph.D., Columbia. *Professor of Business Administration and Finance.*
- BAKER, SARAH (1945), Pennsylvania Academy of Fine Arts, Academic Montparnasse, Phillips Memorial Gallery. *Associate Professor of Art.*
- BANES, DANIEL, B.S., M.S., Chicago; Ph.D., Georgetown. *Adjunct Professor of Chemistry.*
- BATCHELDER, MERRITT C. (1935), B.A., Hillsdale; M.A., Columbia; Ph.D., State University of Iowa. *Professor of English.*
- BECKERMAN, LAWRENCE, A.B., Brooklyn College; LL.B., George Washington. *Adjunct Professor of Communication.*
- BENTLEY, JOHN EDWARD (1924), M.A., Clark; S.T.B., M.R.E.; Boston; Th.D., McGill. *Professor of Psychology*
- BICKFORD, HUGH C., LL.B., LL.M., National University; B.S., M.A., American. *Adjunct Professor of Taxation.*
- BIGGS, WILLIAM E. (1952), B.A., LL.B., M.A., University of Louisville; Ph.D., Ohio State. *Associate Professor of Government and Public Administration.*
- BLACK, LLOYD D., B.A., Toronto; M.A., Clark; Ph.D., Michigan. *Adjunct Professor of Geography.*
- BLANCHE, ERNEST E., B.A., M.A., Bucknell; Ph.D., Illinois. *Adjunct Professor of Statistics.*
- BOWER, ROBERT T., (1949), B.A., Yale; Ph.D., Columbia. *Associate Professor of Sociology.*
- BOWLES, EDGAR (1948), Ph.D., Johns Hopkins. *Associate Professor of Geology.*
- BRADLEY, MARTHA C. (1955), B.S., M.S., Maryland. *Assistant Professor of Biology.*
- BRADSHAW, MARY E. (1950), B.A., Pennsylvania College for Women; M.A., Ph.D., Wisconsin. *Associate Professor of International Relations and Organization.*
- BRANDENBURG, DAVID J. (1948), B.S., Bowdoin; M.A., Ph.D., Columbia. *Associate Professor of History.*
- BRAY, RICHARD (1954), B.A., M.A., Colorado. *Associate Professor.*
- BUCK, SOLON J., B.A., M.A., Wisconsin; Ph.D., Harvard. *Adjunct Professor of History and Archives Administration.*
- BURHOE, SUMNER O. (1956), B.S., Massachusetts State College; M.S., Kansas State College; Ph.D., Harvard. *Professor of Biology.*
- BURR, SAMUEL ENGLE, JR. (1947), Litt.B., Rutgers; M.A., Wisconsin; M.A., Columbia; Ed.D., Cincinnati. *Professor of Education.*
- CAMINITA, LUDWIG, JR., B.S., M.A., George Washington. *Adjunct Professor of Communication.*
- CAMP, PAUL, Sc.B., Sc.M., Brown. *Adjunct Professor of Government and Public Administration.*
- CHATFIELD, HELEN L., *Adjunct Professor of Government and Public Administration.*

- CLAGUE, EWAN, B.A., M.A., Washington; Ph.D., Wisconsin. *Adjunct Professor of Sociology.*
- CLARK, CHARLES M. (1941), B.A., M.A., Ph.D., Cornell. *Professor of English.*
- CONNOR, FRANKLIN G., B.S., Wharton School of Finance. *Adjunct Professor of Government and Public Administration.*
- COOPER, JOSEPH D., B.A., George Washington; M.A., Ph.D., American. *Adjunct Professor of Government and Public Administration.*
- CORNFIELD, JEROME, B.A., New York. *Adjunct Professor of Statistics.*
- CORRELL, ERNST (1929), Dr. oec. publ., Munich. *Professor of Economic History.*
- CRAWFORD, H. D. (1946), B.A., Hillsdale. *Assistant Professor of Journalism.*
- DAVIS, ALVA L. (1952), B.A., Indiana State Teachers College; M.A., Ph.D., University of Michigan. *Professor of Linguistics in the American Language Center.*
- DAVIS, HAROLD E. (1947), B.A., Hiram; M.A., Chicago; Ph.D., Western Reserve. *Professor of History.*
- DERBY, DONALD (1947), B.A., Bowdoin; M.A., Ph.D., Harvard. *Professor of History.*
- DEVOR, JOHN W. (1956), A.B., M.A., Kansas; Ph.D., Chicago. *Professor of Education.*
- DEWEY, WILLIAM E., M.A., Utah. *Adjunct Professor of Public Administration.*
- DIVINE, WILLIAM R., B.A., Pomona; M.A., Cincinnati; J.D., George Washington. *Adjunct Professor of Public Administration.*
- EARLE, CHESTER B. (1955), B.A., Ph.D., Texas. *Assistant Professor of Government and Public Administration.*
- EKIRCH, ARTHUR A., JR. (1947), B.A., Dartmouth; M.A., Ph.D., Columbia. *Professor of History.*
- EGBERT, LAWRENCE D., B.A., Michigan; Doctorat d'Etat en Droit, Paris. *Adjunct Professor of International Relations and Organization.*
- ENDACOTT, JOHN L., B.A., M.A., Kansas; Ph.D., Chicago. *Adjunct Professor of Psychology.*
- FOX, JAMES H. (1950), B.A., M.A., Ph.D., American. *Assistant Professor of Sociology.*
- FRANCK, PETER G., LL.B., Berlin; Dr. Jur., Basle. *Adjunct Professor Economics.*
- FRANK, JOHN G. (1948), Ph.D., Michigan; Ph.D., Munich. *Professor of Languages.*
- GATES, ROBERT F. (1946), Detroit School of Fine Arts; Detroit School of Arts and Crafts; Art Students League of New York; Phillips Gallery; Colorado Springs Fine Arts Center. *Associate Professor of Art.*
- GONDOS, DOROTHY (1947), B.A., Swarthmore; M.S., Ph.D., Pennsylvania. *Associate Professor of History.*
- GOODMAN, CHARLES H. (1956), B.S., Wilson Teachers College; M.S., Ph.D., Pennsylvania State. *Professor of Government and Public Administration.*
- GOOSTREE, ROBERT E. (1953), B.A., Southwestern at Memphis; M.A., Ph.D., State University of Iowa. *Associate Professor of Government and Public Administration.*
- GOSNELL, HAROLD F., B.A., Rochester; Ph.D., Chicago. *Adjunct Professor of Government and Public Administration.*
- GRAVES, W. BROOKE, B.A., Cornell; M.A., Ph.D., Pennsylvania. *Adjunct Professor of Government and Public Administration.*
- HALL, EDWARD T., JR. (1955), A.B., Denver; M.A., Arizona; Ph.D., Columbia. *Professor of Anthropology in Human Relations Area Files, Inc.*
- HATTERY, LOWELL H. (1948), B.A., Ohio; Ph.D., American. *Professor of Government and Public Administration.*
- HENRICI, PETER (1952), Ph.D., Swiss Federal Institute of Technology. *Assistant Professor of Mathematics.*
- HERSH, CHARLES (1950), B.A., M.A., Ph.D., Syracuse. *Associate Professor of Government and Public Administration.*
- HUNTER, LOUIS C., B.A., Knox; M.A., Ph.D., Harvard. *Adjunct Professor of History.*

- HUNTER, O. B., JR., B.S., M.D., Georgetown *Adjunct Professor of Biology*
- HYDE, HOWARD K., B.A., Fletcher; M.A., Chicago. *Adjunct Professor of Government and Public Administration.*
- JOHN, RALPH C. (1949), B.A., Berea; S.T.B., S.T.M., Boston; Ph.D., American. *Professor of Philosophy and Religion.*
- KECK, ANDREW S. (1946), B.A., Williams; M.A., M.F.A., Princeton. *Associate Professor of Art History.*
- KEMPTON, WILLETT M. (1948), B.A., M.A., Wisconsin. *Professor of Communication.*
- KETCHUM, HARRY W., B.A., Denver; M.B.A., Harvard. *Adjunct Professor of Business Administration.*
- KOCH, ELMER C., B.S., M.S., University of Illinois; LL.B., University of Wisconsin. *Adjunct Professor of Accounting.*
- LEVIN, THEODORE H. (1947), B.A., M.A., Brooklyn. *Associate Professor of Economics and Business Administration.*
- LORIMER, FRANK (1938), B.A., Yale; M.A., Chicago; B.D., Union; Ph.D., Columbia. *Professor of Sociology.*
- LUKACS, EUGENE, Ph.D., Vienna. *Adjunct Professor of Mathematics.*
- MACK, CLIFTON E., LL.B., Suffolk. *Adjunct Professor of Public Administration.*
- MAGAW, ELOISE NELSON (1949), B.S., Iowa; M.A., Columbia. *Assistant Professor of Education and Secretarial Studies.*
- MCGRATH, JOHN E. (1955), Ph.B., M.B.A., Chicago. *Assistant Professor of Business Administration and Transportation.*
- McLAIN, JAMES L. (1934), B.A., George Washington; Certificate, Peabody. *Professor of Music.*
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MARKS, MELVIN R., LL.B.; DePaul; M.S., Ph.D., Tulane. *Lecturer in Psychology.*

MASLOW, ALBERT P., B.A., M.A., Western Reserve; Ph.D., Maryland. *Lecturer in Government and Public Administration.*

MARONI, YVES, Diploma, École Libre des Sciences Politiques (Paris); A.M., Virginia; A.M., Ph.D., Harvard. *Lecturer in Economics.*

MARSTELLER, FREDERICK A., B.A., Washington and Lee. *Lecturer in Real Estate.*

MARTIN, ROBERT S., B.S.C., University of Massachusetts; Ph.D., George Washington. *Lecturer in Economics.*

McGRUDER, JOHN L., M.A., Chicago. *Lecturer in Government and Public Administration.*

McKAY, OLIVE, B.A., Montana; M.A., Columbia. *Lecturer in Education.*

McLEOD, JOHN, A.B., Indiana. *Lecturer in Communication.*

McPHERSON, JAMES J., B.A., William and Mary; M.A., Ed.D., Columbia. *Lecturer in Communication.*

MEDLIN, WILLIAM K., A.B., California (Berkeley); lic. Geneva; Ph.D., Geneva. *Lecturer in Government and Public Administration.*

MENSH, JOSEPH, LL.B., LL.M., National. *Lecturer in Real Estate.*

MEREDITH, SPENCER B. *Lecturer in Investments.*

MILLER, LEONARD M., A.B., Albright; M.A., N.Y.U.; LL.D., Albright. *Lecturer in Psychology.*

MILLER, MALCOLM O., B.A., Grinnell; LL.B., Georgetown. *Lecturer in Transportation Law.*

MITTLEMAN, DON, B.A., Columbia; M.A., Ph.D., N.Y.U. *Lecturer in Mathematics.*

MONTONNA, DAVID L., M.A.I., S.R.A. *Lecturer in Real Estate.*

NEWMAN, MORRIS, B.A., New York University; M.A., Columbia; Ph.D., Pennsylvania. *Lecturer in Mathematics.*

OLNEY, ELBERT Y., B.A., Columbia; M.A., George Washington. *Lecturer in Credit Union Management.*

PARKS, E. TAYLOR, B.A., Carson-Newman; M.A., Tennessee; Ph.D., Duke. *Lecturer in International Relations and Organization.*

PEARL, MILTON, A.B., J.D., New York. *Lecturer in Real Estate.*

PENNINGTON, WILLIAM C., B.S., University of Maryland; C.P.A., State of Maryland. *Lecturer in Accounting.*

PERRY, JOHN. *Lecturer in Personnel Management.*

POMRENZE, S. J., B.S., Illinois Institute of Technology; M.A., Chicago. *Lecturer in Government and Public Administration.*

RABINOWITZ, PHILIP, B.A., M.A., Ph.D., Pennsylvania. *Lecturer in Mathematics.*

RASMUSSEN, WAYNE D., B.A., Montana; M.A., Ph.D., George Washington. *Lecturer in History.*

ROSENBERG, HERBERT H., A.B., Syracuse; M.A., Chicago. *Lecturer in Government and Public Administration.*

ROSENBLATT, JOAN R., B.A., Barnard; Ph.D., North Carolina. *Lecturer in Statistics.*

ROSLOFF, AARON, B.S., American; C.P.A., District of Columbia. *Lecturer in Accounting.*

SACHS, DAVID, B.A., Michigan; M.B.A., Harvard. *Lecturer in Real Estate.*

SALERA, VIRGIL, B.S., M.A., Berkeley; Ph.D., Columbia. *Lecturer in Economics.*

SANDERS, BARKEV S., B.S., State Teachers College, Massachusetts; M.A., Ph.D., Columbia; LL.B., Georgetown. *Lecturer in Sociology.*

SHISKIN, JULIUS, A.B., M.A., Rutgers. *Lecturer in Economics.*

SIMPSON, CLARK L., B.B.A. Fenn; M.C.S., Columbus, C.P.A., State of Ohio. *Lecturer in Accounting.*

SMALL, ALBERT H., A.B., Brooklyn College; M.A., American; *Lecturer in Business Administration.*

SPARKS, DONALD, A.B., Maine; M.A.; Ph.D., Chicago. *Lecturer in Government and Public Administration.*

SPITZER, EMIL G., J.D.D., Vienna; M.A., Harvard. *Lecturer in Economics.*

STRAUS, ROBERT W., B.A., Harvard. *Lecturer in Personnel Management.*

STRAUSS, BERTRAM W., B.S., University of Pennsylvania. *Lecturer in Psychology.*

STRONG, GEORGE E., Ph.B., Chicago; A.B., Kansas; LL.B., George Washington. *Lecturer in Industrial Relations.*

THOMAS, GEORGE D., B.A., Wheaton; M.A., American. *Lecturer in Government and Public Administration.*

THURSTON, WILLIAM R., A.B., A.M., Ph.D., Columbia. *Lecturer in Geology.*

TORNABENE, RUSSELL C., A.B., M.A., Indiana. *Lecturer in Communication.*

TRIBBLE, EDWIN. *Lecturer in Public Relations.*

TUCKER, CHARLES W., Bentley School of Accounting and Finance; C.P.A., Ill. and Mass. *Lecturer in Business Administration.*

TUEMMLER, FRED W. *Lecturer in Real Estate.*

VER STANDIG, M. BELMONT. *Lecturer in Advertising.*

WADSWORTH, LAWRENCE W., JR., B.S., Centenary; M.A., Tulane; Ph.D., American. *Lecturer in International Relations and Organization.*

WALKER, LOUISE S., B.A., Sam Houston; M.Ed., Texas. *Lecturer in Education.*

WARD, ANNETTE C. *Lecturer in Retailing.*

WAYNE, IVOR, M.A., Harvard. *Lecturer in Sociology.*

WEBSTER, GEORGE C., B.S., Maryland; LL.B., LL.M., Georgetown; M.B.A., Harvard. *Lecturer in Business Administration.*

WEGSTEIN, JOSEPH, B.S., M.S., Illinois. *Lecturer in Mathematics.*

The Graduate Council

Ernst Posner, Ph.D., Dean of the Graduate School and Chairman of the Department of History—Chairman

Charles K. Trueblood, Ph.D., Chairman of the Department of Psychology—Vice-Chairman

Members

Robert F. Gates, Chairman, Department of Art

Sumner O. Burhoe, Ph.D., Chairman, Department of Biology

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Willett M. Kempton, M.A., Chairman, Department of Communication

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Merritt C. Batchelder, Ph.D., Chairman, Department of English

Edgar Bowles, Ph.D., Chairman, Department of Geology

Catheryn Seckler-Hudson, Ph.D., Chairman, Department of Government and Public Administration

Pitman B. Potter, Ph.D., Chairman, Department of International Relations and Organization

Walter F. Shenton, Ph.D., Chairman, Department of Mathematics

James E. McLain, B.A., Chairman, Department of Music

Austin Van der Slice, Ph.D., Chairman, Department of Sociology and Anthropology

John H. Smith, Ph.D., Chairman, Department of Statistics

Jane H. Kidwell, Secretary to the Graduate Council

The functions of the Graduate Council include:

(1) Supervising the academic activities of the Graduate School in general, including personnel and curriculum and especially the Comprehensive Examinations and final oral examinations for graduate degrees. Receiving and approving reports of the Graduate Dean on the results of Comprehensive Examinations.

(2) Examining and approving or recommending changes in projects for Master's theses and Doctoral dissertations; approving nominations of members of thesis and dissertation advisory committees.

(3) Receiving reports on admissions to candidacy for Master's and Doctoral degrees by the Graduate Dean and passing upon requests for special fields for the Comprehensive Examinations or special tools of research.

(4) Passing upon requests for extra credit (above 3 semester hours) on non-thesis research and in-service projects.

(5) Passing upon applications for fellowships and other awards and making recommendations to the Dean of Administration on such matters.

(6) Advising the Dean of the Graduate School on any problems requiring special action, such as special admission cases, and on general policy problems, whether brought before the Council by the Dean or arising on the Departmental level.

A student may present through the Graduate Dean a written request for any action by the Council not covered by the Graduate Statutes or constituting an exception thereto. After a review of the grounds for the request and the facts of the situation the Graduate Council may take such action as will serve the best interests of the student within the limits of sound academic practice.

Degree Programs and Requirements

The Graduate School offers the following degree programs:

1. Programs leading to the degree of Doctor of Philosophy in Economics, Economic History, Government, History, International Relations and Organization, Mathematics, Psychology, Public Administration, Sociology, and Statistics;

2. A program leading to the degree of Doctor of Education;

3. Programs leading to the degree of Master of Arts in Art, Communication including Journalism and Radio and Television, Economics, Economic History, Education, English, Government, Guidance and Counseling, History, International Relations and Organization, Mathematics, Music, Psychology, Public Administration, Sociology, and Statistics;

4. Programs leading to the degree of Master of Science in Biology and Chemistry;

5. Programs leading to the degrees of Master of Business Administration and Doctor of Philosophy in Business Administration are offered through the School of Business Administration.

To qualify for the degree of *Doctor of Philosophy* and *Doctor of Education* a candidate must (1) complete with a better than B average at least seventy-two hours of graduate study, not less than thirty hours of which must have been taken in residence at The American University and not less than fifty hours of which must have been completed in the fields selected for Comprehensive Examinations, (2) pass Comprehensive Examinations in five fields of study recommended by the Chairman of the Department in which he is taking his principal degree work and approved by the Graduate Council, achieving the grade of Distinction in at least one field, (3) demonstrate proficiency in two research tools as approved as part of advancement to candidacy, (4) present a dissertation demonstrating distinctive competence in research and the ability to present new knowledge effectively, and (5) pass an oral examination on the dissertation and on any portions of the fields of study which are related to his inquiry. No academic credit is allowed for the dissertation. Candidates for the Ph.D. degree in Public Administration must also complete an approved case study.

To qualify for the degree of *Master of Arts*, *Master of Science* or *Master of Business Administration* a candidate must (1) complete with a B average at least thirty hours of graduate study of which twenty-four hours must have been completed in residence at The American University, the thirty-hour requirement permitting inclusion of up to six hours of thesis or case study, if completed within the framework of the appropriate seminars, (2) pass Comprehensive Examinations in three fields of study (two in Chemistry) approved by the Chairman of the Department in which he is taking his principal degree work and by the Graduate Dean, (3) present a thesis or case study demonstrating competence in the analysis of research data and expository reporting or satisfy any departmental or school requirement established in lieu thereof with Graduate Council approval. In any department requiring a thesis for the Master's Degree, the advisory committee may consist of one, two, or three persons, and the oral examination on the thesis is optional with the department.

Candidates for the Master of Arts degree in English and candidates for the Master of Science degree in Biology and Chemistry must pass proficiency examinations in a modern language, as explained under the respective departments below.

Area Studies Programs

For many years, various departments of The American University had been offering courses pertaining to particular geographic or political areas of the World, such as Soviet Russia and Eastern Europe, Latin America, the Middle East, Asia and elsewhere, drawing on the assistance of the outstanding experts on the staffs of government departments and Washington research institutions. Some of these courses have been integrated into programs of Russian and East European and of Latin American Studies; a program of Far Eastern Studies is now being developed and others are to follow. The programs, together with appropriate language studies, enable the student to gain a thorough understanding of the people, geography and economic conditions and problems of the respective area in their historical context.

Candidates for the M.A. and Ph.D. degrees may pursue degree programs in Area Studies under the guidance of an Interdepartmental Committee, emphasizing political, economic, international, or historical aspects of the area. They will plan their programs in consultation with the appropriate member of the Interdepartmental Committee.

As a rule, candidates for the M.A. degree will take comprehensive examinations in a general field applicable to their principal interest and in two fields pertaining to the area of their choice. They must also write an acceptable thesis. In lieu of submitting a thesis, candidates concentrating in Russian and East European Studies may elect to pass an examination in Russian, based on the equivalent of two years of language study. In that case, they must complete a minimum of 30 hours of course work including an approved research course.

Candidates for the Ph.D degree will take comprehensive examinations in two general fields and in three fields taken from areas of their interest. In addition to presenting an acceptable dissertation, they must pass tool examinations in two languages (Spanish, Portuguese, or French in the Latin American program; Russian and one other foreign language, preferably some other Slavic language, German or French in the Russian-East European program). In appropriate cases, Statistics may be substituted.

Three-Year Master's Program

The Master's degree is increasingly becoming a prerequisite to professional positions in many fields. To facilitate the undergraduate student's progress toward the degree, the University provides an integrated course of study beginning with the junior year and leading to the degrees of Master of Arts, Science, and Business Administration. A student enrolled in this program may

1. tentatively select in his junior year the fields for his Master's comprehensive examinations and arrange his electives accordingly,
2. apply toward his course requirement for the Master's degree the credits earned in graduate level courses that he has taken during the senior year in excess of hours needed for the Bachelor's degree,
3. be advanced to candidacy for the Master's degree upon entering his graduate year of study, if he achieves an average of "B" or better in his major field,
4. be in a position to include a broad program of research in his graduate study and to complete all of the work for the degree in one year.

Certificate Programs

In addition to its degree programs, the University offers certificate programs in certain fields of business and public administration and in education. These programs enable the student, graduate as well as undergraduate, to acquire specialized knowledge in areas related to his professional work or to strengthen the background he already has. Graduate students may make themselves eligible for the award of certificates by appropriately selecting the courses they are taking toward their respective degrees.

Certificate programs are available in the following fields:

Business Administration:

Certificate of Executive Proficiency.....	24 hours
Certificate of Proficiency in Accounting.....	48 hours
Certificate in Military Management.....	39 hours
Certificate in Credit Union Management.....	30 hours

Government and Public Administration:

Certificate in Public Opinion and Propaganda Analysis.....	24 hours
Certificate in Organization and Management.....	24 hours
Certificate in Record Administration.....	30 hours
Certificate in Archives Administration.....	30 hours
Certificate in Government Supply Management.....	24 hours
Certificate in Public Budgetary Administration.....	24 hours
Certificate in Public Personnel Management.....	24 hours
Certificate in Police Administration.....	30 hours

Education:

- Certificate in Elementary Education
- Certificate in Secondary Education
- Certificate in School Administration
- Certificate as School Psychologist

Professional certificates in Education call for the completion of 30 hours of selected course work beyond the Master's degree.

Admission

Admission to graduate study in the Graduate School of The American University is open to students who hold a Bachelor's degree earned by pursuing a four-year academic curriculum or its equivalent in an accredited institution of higher learning. They may be admitted as either degree or non-degree students.

An applicant for admission as a *degree student* must ask each college or university attended to send an official transcript of his record to the Admissions Office, 1901 F Street, N.W., Washington 6, D.C. He must indicate on the application form the field in which he plans to do his principal graduate work.

Degree students will be admitted to full graduate standing if they have completed, with a grade of B or better, twenty-four hours of undergraduate work in the field of their prospective graduate study or in closely related fields. Applicants who cannot meet this requirement will be admitted to qualified standing with

the proviso that they will be requested to complete additional course work to remedy this deficiency. Upon application they will be admitted to full standing after they have remedied their background deficiencies and in addition have completed twelve hours of graduate work with an average of B or better.

Graduates of unaccredited four-year colleges may be admitted to qualified standing if they present a satisfactory undergraduate major completed with an average of better than B.

Graduates of accredited four-year colleges may be admitted as *non-degree students* to take individual courses for which they have the necessary qualifications. They must submit a certificate showing that they hold an acceptable Bachelor's degree.

Applicants whose native language is not English must show to the satisfaction of the Graduate Dean their ability to use the English language with sufficient facility to pursue academic work on the graduate level. They must also submit certified English translations of their credentials and satisfy all requirements of the United States Immigration and Naturalization Service.

The Graduate Dean may require applicants for admission to take the Graduate Record Examination before acting on their applications.

Advancement to Candidacy

Admission to the Graduate School does not constitute advancement to candidacy for a higher degree. Students on full standing who have completed twelve hours of graduate work with an average of "B" or better, and students on qualified standing who meet the same requirement and have completed the necessary preparatory or additional work, should apply for advancement to candidacy for the Master's degree by determining, in consultation with their departmental chairman, the fields they want to offer for comprehensive examination, filling out the appropriate form, and filing it with the Office of the Graduate Dean. Students seeking advancement to candidacy for the Ph.D. degree must have completed, with an average of better than "B," thirty semester hours in graduate courses, twelve of these in residence. Advancement to candidacy for the Ph.D. degree will be granted only upon the considered recommendation of the student's major department.

Candidacy for the Master's degree remains valid for a period of five years and for the Doctor's degree for a period of seven years, provided the candidate maintains the necessary grade average. Upon application to the Graduate Council it may be renewed for a period of three years with conditions that seem appropriate and in accordance with regulations then in force. Candidacy lapses if the required grade average has not been maintained.

Comprehensive Examinations

Written comprehensive examinations for advanced degrees, designed to measure a candidate's competence in the fields of his graduate study, are administered twice a year, once in the fall and once in the spring, and must be taken as a unit. Applications for admission to the examinations must be filed before the final dates announced in this catalog and in the University's semester bulletins, on forms to be signed by the students' department chairman. Each application must be accompanied by the appropriate fee (\$15.00 for master's examinations, \$25.00 for doctor's examination) to be paid in the Bursar's Office before the application is filed with the Graduate Dean.

A student is eligible to take the comprehensive examinations, after he has completed at The American University, with the required average, the number of hours of graduate work prescribed for his degree, not including thesis or case study seminar. A well-prepared candidate may obtain permission from the Graduate Dean to take the comprehensive examinations in the semester in which he completes the necessary hours of course work.

Candidates for the degrees of Master of Arts, Master of Science, and Master of Business Administration take comprehensive examinations in three fields (two only in Chemistry). Candidates for the degrees of Doctor of Philosophy and Education take comprehensive examinations in five fields. Fields offered for the Master's degree may be offered for more intensive examination for the degrees of Doctor of Philosophy or Education. The various departments of the University specify fields and areas in which the student may present himself for examination. The fields and areas so specified are indicated department by department under *Courses of Study*.

Each comprehensive examination paper is read by two readers and rated Distinction, Satisfactory, or Unsatisfactory (A, B, and C or lower) by each reader; in the case of disagreement a third reader is appointed. The composite rating is decided by the concurrent ratings of two readers. In order to pass a set of comprehensive examinations a candidate for a Master's degree must obtain a composite rating of at least Satisfactory in every field with not more than two single ratings of Unsatisfactory while a candidate for the Doctor's degree must achieve (a) a composite rating of at least Satisfactory in every field; (b) a composite rating of Distinction in at least one field; and (c) not more than three single ratings of Unsatisfactory in all five fields.

In general a candidate who fails to pass his comprehensive examinations may not retake them except in their entirety, with the permission of, and under conditions imposed by, the Graduate Council. An exception may be made in the case of a candidate for the Doctor's degree who fails to achieve a composite rating of Distinction in one field or who receives a composite rating of Unsatisfactory in one field, provided that his performance in the rest of the examinations shows indications of strength above the minimum. In such case the Graduate Council may permit the candidate to obtain new ratings to replace the original ones in one or more fields by repeating examinations in those fields in an attempt to achieve a passing performance in the set of comprehensive examinations as a whole. If unsuccessful such an attempt confirms the candidate's failure, leaving him in the same position as if he had failed more decisively in the first place; i.e., any further attempt must be approved by the Graduate Council, must include all fields, and is final.

No student will be permitted to attempt the comprehensive examinations for a third time.

Tools of Research

A tool of research is a foreign language or a quantitative discipline required in preparation for an advanced degree.

No tool of research is required for the Master's degree except that

1. Candidates for the Master's degree in Biology and Chemistry must pass a proficiency examination in technical German, French, or Russian.

2. Candidates for the Master's degree in English must pass a proficiency examination in French or German or offer an approved substitute.

Two tools of research are required of candidates for the Doctor's degree. French, German, statistics, accounting, or mathematics may be selected with the approval of the departmental chairman. Languages other than French and German are subject to approval by the Graduate Council.

Ordinarily the tool requirement is satisfied by examination. However, candidates offering statistics and/or accounting may also meet the requirements as follows:

(1) in accounting by completing satisfactorily first year accounting, or Use of Accounting Methods and Intermediate Accounting ¹, and two courses selected from Cost Accounting, Auditing, Analysis of Financial Statements, Advanced Accounting, and Problems of Accounting in the Federal Government.

(2) in statistics by completing satisfactorily first year Statistics and two courses selected from Correlation Analysis, Theory of Sampling, Design of Schedules, Machine Methods in Large Scale Surveys, Quality Control in Management.

The tool requirement must be satisfied before a thesis or dissertation project will be approved by the Graduate Council. The Council appoints examiners to test candidates for proficiency in tools of research and to certify the results to the Registrar.

Theses, Case Studies and Dissertations

A candidate proposing a topic for his Master's thesis or Doctor's dissertation must submit for approval of the Graduate Council a *thesis or dissertation project* in which he reports on the results of his preliminary research. Deadlines for submission of such a project are indicated in the Academic Calendar in the current University course announcements.

A typewritten draft should first be cleared with the department chairman. The project must include the following items:

1. The date.
2. Name of the candidate.
3. Department of principal work.
4. Degree for which student is a candidate.
5. Tools of research, if required for the degree, with dates at which requirements were satisfied.
6. Title of thesis or dissertation (may later be modified in consultation with committee).
7. Concise statement of major problem of research and supporting problems.
8. Data to be used. The main published references must be set forth in good form as a selected bibliography. Both primary and secondary sources, especially studies in the field already completed by others, must be clearly indicated, if known, whether they are published or not.
9. Statement of probable value and importance of the study.
10. Brief description of the methods to be followed in making the study, designed to demonstrate awareness of major difficulties of research and methods which seem likely to be useful in dealing with them, and to indicate mastery of any appropriate tools and techniques of research.
11. Preliminary outline of the thesis or dissertation with chapter headings and either subtopics or general indication of material in each chapter.

After approval of the draft by the department chairman, a Master's candidate submits six and a Doctor's candidate submits twelve copies of the project. The candidate is notified of the action taken by the Graduate Council on his project; acceptance indicates that the Council considers the topic is a suitable one if it is developed adequately, a task which is the responsibility of the candidate.

At the same time the candidate must submit a "Candidate's Qualifications" form, obtainable at the Graduate Office, designed to indicate his preparation for writing a thesis or dissertation.

An *advisory committee* is appointed by the Graduate Council, on nomination of the department chairman, for each candidate working on a thesis or dissertation. The committee for a Doctoral candidate has five members; that for a Master's candidate has one, two, or three members. At all stages of his research the candidate is expected to take the initiative and seek the advice of his advisory committee and to provide copies of all drafts to the members. Final dates for submitting completed manuscript to advisory committees and department chairmen are indicated in the Academic Calendar.

Oral Examinations, where required, are scheduled by the department chairmen. The final date for the oral examination is indicated in the Academic Calendar. The results are reported to the Registrar through the department's chairman and the Graduate Dean on forms provided for the purpose. Suggestions for revision may be made as conditions to be met before members will sign the title page of the master copy.

The *final manuscript* of the thesis or dissertation must be prepared in good form as described in an acceptable thesis manual. It must deal adequately with the suggestions for revision that have been made by the advisory committee and the master copy must be approved and signed on the title page by the committee members.

A Master's candidate submits, for deposit with the Registrar, two copies of his thesis, one on good bond paper 8½" x 11" in size and one clearly legible carbon on paper the same size, and two copies of a five-hundred word summary. Other forms of reproduction must be approved in advance.

Doctoral dissertations are reproduced on microfilm on the basis of a contract between the candidate and University Microfilms, Inc., and an abstract of the dissertation is published in *Dissertation Abstracts*. A doctoral candidate must sign an agreement to that effect with University Microfilms, Inc. and prepare his final copy in accordance with their specifications. One final copy is submitted, for deposit with the registrar. Copies of the *Agreement* and of the *Suggestions for the Preparation of Doctoral Dissertations for Microfilming* may be obtained from the Graduate Dean or from the departmental chairmen.

Case studies prepared for the Master of Arts or Doctor of Philosophy degrees in Public Administration must comply with the requirements for the thesis, except that the project outlines are submitted to the Department of Government and Public Administration and reported to the Graduate Council.

Types of Graduate Work

In addition to lecture-discussion courses and seminars, the program of the Graduate School provides reading courses, opportunities for non-thesis and in-service research, including case studies, and professional institutes. No more than six hours may be counted toward the hour requirements for the Master's degree for reading courses, individual research, in-service projects, or professional institutes, nor more than nine hours for any two or more of these types of work combined; for the Doctorate the limits are nine and eighteen hours, respectively.

A *reading course* is an offering which the student pursues on an individual basis with a limited number of tutorial conferences. The course of reading is outlined by the instructor. A student is eligible for a course of this type for which he is adequately prepared provided that he has completed at least six semester hours of

graduate study in residence with an average grade of at least B. Special forms are provided by the Registrar for registration in this type of course. The student is expected (1) to master materials at least equivalent to those covered in a comparable course of the lecture-discussion type, (2) to attend a minimum of four scheduled conference meetings, (3) to pass tests on the materials assigned, including an end-of-course written examination. The instructor submits to the Department Chairman for filing with the Registrar (1) the grade in the course; (2) the written examination questions administered by the instructor; (3) the student's answers; (4) a list of readings completed by the student; and (5) the dates of the conference meetings.

A student may elect an *individual research project*, apart from thesis or dissertation, for credit toward a graduate degree after he has completed twelve semester hours of graduate work in residence with at least a B average. A proposal for an individual research project is made by the student through any instructor to a Department Chairman. The proposal must contain the name of the student, the date of the application, the name of the supervising instructor, the title of the project, and an outline according to which he proposes to operate. The project may not initially be elected for academic credit in excess of three hours. The application must be filed with the Registrar upon certification by the Department Chairman. Individual research projects must be completed within one calendar year of the date of approval. The student upon completion of the project must file with the Registrar for transmission to the library the research report as a manuscript typed on standard letter size paper (8½" by 11"), bound in stiff covers and bearing the signatures of the instructor and the Department Chairman. A second report similarly bound and signed must accompany the manuscript describing the manner in which the research was conducted, detailing the bibliography, and summarizing in two typed pages the contribution made by the research study. The Graduate Council reviews the work submitted and may allow up to nine hours credit for any project.

An *in-service project* is an individual research project undertaken by a student working in a government, education, business, or other selected organization concerning some aspect of its operation. Completion of a minimum of twelve hours of resident graduate study with at least a B average is a prerequisite for undertaking an in-service project, which is supervised jointly by a member of the faculty and an official of the organization. The proposal must state the date, the name of the student, the names of the supervisors, the title of the project and an outline of the scope and method of the inquiry. The in-service project must be approved by the Graduate Council, is offered initially for three hours of credit, and must be completed within one calendar year from the date of registration. The student upon completion of the in-service project must file with the Registrar a typed copy of the manuscript bound in stiff covers for transmission to the Library. This copy must be approved and signed by the official and instructor who have supervised the project and the Chairman of the Department concerned. It must give a full account of the work done. The Graduate Council reviews the work submitted and may allow up to, but not to exceed, nine hours for any one project.

A *professional institute* is a specialized and intensive academic offering organically related to the educational program of the University and designed primarily for persons engaged in various professional fields. A student may earn credit toward an advanced degree in an institute which is approved for graduate credit only when the election is approved by the appropriate Department Chairman or Chairmen, when he meets the prerequisites for registration in that institute, and enrolls according to its regulations.

Graduate Awards

Each year, the Graduate School awards a number of fellowships, assistantships, and scholarships to students of superior ability and special promise. Applications must be made on blanks to be obtained from the Office of the Graduate Dean and filed not later than March 15. They must be supported by full academic credentials and recommendations from responsible persons.

For the academic year 1957-58, the following awards will be announced:

THREE \$2000 MASSEY FOUNDATION FELLOWSHIPS

For advanced graduate students who are Canadian citizens.

ONE \$1500 REYNOLDS FELLOWSHIP

For persons training for missionary service.

FOUR \$1200 TEACHING FELLOWSHIPS

Carrying also free tuition for two courses each semester.

TEN \$360 GRADUATE ASSISTANTSHIPS

Carrying also full tuition for four courses each semester.

SIX PUBLIC ADMINISTRATION INTERNSHIPS

Carrying full tuition for five courses each semester.

FIVE HALL OF NATIONS SCHOLARSHIPS

Carrying half tuition for foreign students for a study and internship in international agencies.

ONE COLLIER ALUMNI SCHOLARSHIP

Carrying a \$500 stipend.

THREE WASHINGTON SEMESTER SCHOLARSHIPS

Carrying full tuition for five courses each semester.

ONE OR MORE SUMMERS SCHOLARSHIPS

Carrying full tuition for five courses for young men or women preparing for a career in United States Government Service.

FIVE GIANT FOOD DEPARTMENT STORES SCHOLARSHIPS OF UP TO \$1000 EACH

Open to men interested in careers in food retailing. Supplemented by paid internship with Giant. Folder available.

ONE ZONTA CLUB FELLOWSHIP OF \$300

For a woman preparing for a career in a profession, in need of financial aid.

Graduate Fraternities

There are local chapters of the following graduate national honorary organizations at The American University:

1. Chi Psi Omega Honor Society, incorporated in 1921, is represented by its John Marshall Chapter. It is composed of graduate students, faculty members, and others elected into membership because of their scholarship and contributions to learning.

2. Founded in 1923 at The American University, the Alpha Chapter of Phi Delta Gamma National Fraternity for Graduate Women is a very active group interested in the promotion of intellectual leadership for women. Other chapters of this National Fraternity are at Johns Hopkins, George Washington, Ohio State, Columbia, University of Wisconsin, Western Reserve, Cornell, Temple, University of Chicago, and the University of Pittsburgh.

Other honorary societies in which both graduate and undergraduate students participate include:

Pi Gamma Mu—Social Sciences	Pi Delta Epsilon—Radio and Journalism
Phi Alpha Theta—History	Kappa Phi Kappa—Education (Men)
Pi Sigma Alpha—Political Science	Kappa Phi Kappa—Education (Women)

Financial Information

The tuition fee is \$17.00 a credit hour. Other fees applicable to graduate students are:

Application fee for full-time students.....	\$ 5.00
Comprehensive examinations (with each application) — fall and spring only	
For master's degree.....	\$ 15.00
For doctor's degree.....	\$ 25.00
Supervision of theses (if no thesis seminar is completed)	
For master's degree.....	\$ 51.00
For doctor's degree.....	\$102.00
Graduate study fee (for students who have completed course and thesis seminar requirements and wish to remain on the University's rolls) ..	\$ 17.00
Binding master's theses or case studies for deposit in the Library..	\$6.00-\$ 24.00
Microfilm publication of doctoral dissertation*.....	\$ 30.00
Graduation fee	\$ 25.00

The following fees apply to all students:

Late registration (effective opening day of classes in any session)	\$ 3.00
Transfers from course to course and changes in status.....	\$ 3.00
Reinstatement fee	\$ 5.00
Student activities fee (optional for graduate students who wish to participate in the University's extra-curricular athletic and social activities) A session, Fall and Spring.....	\$ 15.00
Health fee (required of all students residing in University facilities) ..	\$ 10.00
Deferred or special examinations—each.....	\$ 5.00
Examinations for validation of credit—each credit hour.....	\$ 5.00
Official transcripts (after first)	\$ 1.00
Certification without seal (after first)	\$ 0.25

Financial regulations are subject to change at the beginning of any session by action of the Board of Trustees of the University. For current regulations applying to fees and payments of charges *see* the *Bulletins* published by the University before the opening of each session.

* Additional optional charges are: (a) For obtaining the copyright (if desired, insert copyright notice) \$5.00 plus the cost of two positive microfilm copies at 1¼ cent per page per copy (b) For receiving abstract reprints, \$12.00 per hundred (c) For the binding of candidate's copy(ies), \$3.00 per copy.

How to Plan a Degree Program:

Practical Suggestions

After having been admitted to the Graduate School, a student seeks an interview with the Chairman of the Department * in which he intends to do his principal work. In this interview, he is advised of possible background deficiencies and how to remedy them, defines his degree objectives, and determines tentatively the fields he wants to offer for comprehensive examination upon completion of his course work and the tools of research, if any, in which he wishes to be examined. Inasmuch as this first interview lays the foundations for the entire graduate program, it is advisable to have it before the registration period.

Throughout his course of study, the student has an interview with his department chairman before the opening of each semester in order to plan his work and to check on his progress toward the degree. In the later phases of his degree program, more frequent consultation becomes necessary to make sure that all regulations of the Graduate School are complied with at the proper time. Responsibility for observing regulations and deadlines announced in the University's publications rests exclusively with the student.

1. A student, admitted to full standing, must apply for advancement to candidacy upon completion of 12 hours of approved work meeting the required minimum average.

2. A student admitted to qualified standing, who has remedied his background deficiencies and completed 12 hours of approved graduate courses meeting the required minimum average, must apply for admission to full standing and advancement to candidacy.

3. At the time he applies for advancement to candidacy, a student once again discusses with his department chairman his selection of comprehensive examination fields to recheck the courses he has taken and plans to take in preparation for the examinations.

4. Upon completion of the required number of graduate course hours with the necessary average or, with special permission, in the semester in which he completes these hours, the candidate is ready for admission to the comprehensive examinations. He applies before the final date stated in the catalog, fills out the appropriate form, has it signed by the department chairman, and pays the examination fee in the Bursar's office.

5. Normally a student completes his hour requirement and takes the comprehensive examinations before starting work on his thesis, where required, or dissertation. Also where proficiency in one or more tools is required, the appropriate examinations must be passed before a thesis or dissertation proposal can be approved by the Graduate Council.

6. Selection of the thesis, case study or dissertation subject will depend on the student's principal interest and on the availability of the necessary research data and facilities. Before submitting a formal proposal in accordance with Graduate School regulations above, a student should discuss the topic of his choice with his departmental chairman and obtain his approval.

7. Students should not enroll in the departmental thesis seminar before they are ready to start work on their thesis or dissertation or on their respective pro-

* In the School of Business Administration, a Graduate Counselor has been appointed to assist students in planning their degree programs.

posals. Ph.D. candidates are required to enroll for at least three hours of thesis seminar. While the seminar does not carry credit toward the Ph.D. degree, the tuition paid is applicable toward the fee for dissertation supervision.

8. Upon approval of the thesis or dissertation project, the student should immediately call on all members of the appointed advisory committee to establish contact with them and to receive their suggestions. He should also see them at regular intervals so as to encourage their continued interest and assistance. Individual copies of his draft manuscript are needed by all committee members.

9. After the manuscript of the thesis or dissertation has received tentative approval of the advisory committee, it is submitted to the department chairman who schedules the oral examination, where required.

10. Students should take great care to prepare their final copies in accordance with the regulations detailed under the heading Theses and Dissertations. Failure to do so may result in financial loss and considerable delay in obtaining the degree.

11. A student who has completed all other requirements, but who does not succeed in submitting the final copies before the final date established in the University Calendar may obtain appropriate certification from the University Registrar. Also, conferral of the degree will be authorized by the Board of Trustees at the next Board meeting, although actual conferral has to be postponed until the following commencement.

All of the requirements have been described in detail above.

Courses of Graduate Study

General Information

The following pages describe the offerings of all departments of instruction, providing courses on the graduate level. Arabic numbers in parentheses following descriptive course titles indicate semester credit hours earned by completion of each course at the rate of one credit hour for one 50-minute class session or two clock hours of laboratory work a week for 16 weeks or the equivalent.

After each course description is indicated the session (Summer, Fall, Spring) during which it is expected the course will be offered. Some variations in this plan may be necessary. Revised schedules indicating the hour, location, and instructor for each course are published prior to the opening of each session. Students should consult these revised session announcements for registration purposes. The University reserves the right to cancel or change any course listings in this catalog or in any other published announcements at any time.

Undergraduate courses, including prerequisites, are fully described in the general University catalog and in the catalog of the School of Business Administration.

Course Numbering System

Each course is identified by a decimal number.

The first series of one or two numbers (3-69) indicates the area in which the course is offered.

The second series of three numbers identifies the level of each course. Courses numbered .500-.599 are graduate courses to which advanced undergraduate students may be admitted. Courses numbered .600-.799 are for graduate students only. Information on graduate reading courses, individual research projects, in-service projects, and professional institutes is found on pages 20-21 of this Catalog.

Art

Associate Professors: SARAH BAKER; ROBERT F. GATES (Chairman); ANDREW S. KECK. *Assistant Professor:* BEN L. SUMMERFORD. *Lecturer:* ELIZABETH HOLT.

GRADUATE DEGREE—Master of Arts.

Course Requirements: Minimum of 30 hours of approved graduate work, 12 of which must be in art and 6 in art history.

Written Comprehensive Examinations: 3, including one in a phase of art history; one in theories and techniques of painting; and one in esthetics or in a field in one of the humanities or social sciences.

Other Requirements: Thesis or execution of an original work or works of art in lieu of thesis.

Graduate Courses

- 5.533 **MATERIALS & TECHNIQUES OF PAINTING (3)** Technical investigation of painting methods from Renaissance to present. Preparation of grounds, media, underpainting, glazing, emulsions for tempera. *Prerequisite, permission of instructor.* FALL.
- 5.560 **GRADUATE DRAWING¹ (3)** Experiments in the creative, emotional quality of drawing. Development of a personal creative expression. *Prerequisite, permission of instructor.* Fee, all students, \$5 a credit hour. FALL.
- 3.561 **GRADUATE DRAWING² (3)** Continuation of 5.560. Fee, all students, \$5 a credit hour. SPRING.
- 7.500 **RENAISSANCE PAINTING (3)** Italian Renaissance and Baroque painters and El Greco, Poussin, Rembrandt, Rubens, Velasquez. Special attention to original works in Washington. FALL.
- 7.501 **MODERN PAINTING (3)** Critical examination of the aims and accomplishments of painting in Europe since 1700. Special attention to original works in Washington. SPRING.
- 7.504 **RENAISSANCE ARCHITECTURE (3)** Development of the abstract art of architecture in Europe from 1400 to the "revivals" about the year 1800 and comprising the Renaissance, Baroque, and Rococo movements. 1957 FALL AND ALTERNATE YEARS.
- 7.505 **MODERN ARCHITECTURE (3)** Development of architecture in Europe from 1800 to the present day, ending with the International Style. 1956 SPRING AND ALTERNATE YEARS.
- 7.506 **RENAISSANCE SCULPTURE (3)** Representational art of sculpture as conditioned by the currents of humanism, individualism, and absolutism in Europe between 1400 and 1800. 1956 FALL AND ALTERNATE YEARS.
- 7.507 **MODERN SCULPTURE (3)** Changes in sculpture viewed against changes of taste of Europe from 1800 to the present. 1957 SPRING AND ALTERNATE YEARS.
- 7.510 **ART IN THE U.S.¹; TO 1870 (3)** Architecture, sculpture, painting from earliest colonial days to 1870, viewed against their European backgrounds. FALL.
- 7.511 **ART IN THE U.S.²; FROM 1870 (3)** Evaluation of the major art forms in this country during period characterized by its search for a new style in art. SPRING.
- 3.692 **GRADUATE ART LABORATORY (6)** Student masters language by which he communicates his ideas. Various approaches and pictorial techniques studied and pursued through studio work.
- 5.798 **MASTER'S PROJECT SEMINAR (6)** Laboratory course in painting encouraging a personal vision culminating in an original work undertaken and executed independently. A critical analysis of the project is also undertaken.
- 5.799 **THESIS SEMINAR IN ART (3-6)** Alternate course to 5.798, if student elects to submit a written thesis.

Biology

Professor: SUMNER O. BURHOE (Chairman). *Adjunct Professor:* O. B. HUNTER.
Assistant Professor: MARTHA C. BRADLEY.

GRADUATE DEGREE—Master of Science.

Course Requirements: Minimum of 30 hours of approved graduate work, 6 hours of which may be in 9.799—Thesis Research in Biology. Latter not to be included in minimum of 40 hours in Biology which candidates must have completed on both the graduate and undergraduate levels.

Written Comprehensive Examinations: 3, one to be selected from the areas of vertebrate or invertebrate zoology (classification, morphology, life histories, and physiology), one from among the following specialized fields of biology: botany, ecology parasitology (including bacteriology), biochemistry, histology and cytology, genetics and evolution, one another specialized field of biology or in a specialized field selected from a related department.

Other Requirements: Reading proficiency in technical German, French or Russian; Thesis based on 9.799 Thesis Research and oral defense of thesis.

Graduate Courses

- 9.500 INVERTEBRATE ZOOLOGY (4)** Morphology, physiology, and evolutionary relationships of invertebrate animals. *Prerequisite*, 12 hours of Biology. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1958 SPRING AND ALTERNATE YEARS.
- 9.503 GENERAL ENTOMOLOGY (4)** Morphology, life history, classification, and economic importance of insects. *Prerequisite*, 9.210. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1957 SPRING AND ALTERNATE YEARS.
- 9.505 VASCULAR PLANTS (4)** Advanced study of anatomy and physiology of roots, stems, leaves, flowers, and fruits of seed plants. Distribution and ecological aspects also considered. *Prerequisite*, 9.211. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1957 FALL AND ALTERNATE YEARS.
- 9.507 GENETICS (3)** Principles of heredity and variations in animals and plants. Problems to illustrate Mendelian inheritance. *Prerequisite*, 12 hours in biology. 3 hours of lecture, 2 hours problem work. Laboratory fee, parttime students, \$5. 1957 FALL AND ALTERNATE YEARS.
- 9.510 VERTEBRATE EMBRYOLOGY (4)** Mechanics of development. Formation of germ cells, fertilization, cleavage of the fertilized ovum, morphogenesis, and later development of the frog, chick, and pig. *Prerequisite*, 12 hours in biology. 3 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1956 FALL AND ALTERNATE YEARS.
- 9.514 HISTOLOGY-CYTOLOGY (4)** Structures and properties of cells. Microscopic study of tissues and organs of representative mammals, including man. *Prerequisite*, 12 hours in biology. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1957 FALL AND ALTERNATE YEARS.
- 9.515 BIOLOGICAL TECHNIQS (4)** Fundamental technics in the preparation of microscopic slides of plant and animal tissues. Whole mounts. Microphotography. Embedding in plastics. *Prerequisite*, permission of department chairman. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1958 SPRING AND ALTERNATE YEARS.
- 9.518 PARASITOLOGY (4)** Parasites and their relationships to disease and human welfare. Life histories, morphology, identification and parasitological preparations. *Prerequisite*, permission of department chairman. Laboratory fee, parttime students, \$5. 1956 FALL AND ALTERNATE YEARS.
- 9.519 NATURAL HISTORY OF LOCAL FAUNA (4)** Study of local animals and of their adaptation, geographical distribution, behavior, relationship to environment. *Prerequisite*, 9.210, 9.211. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1958 SPRING AND ALTERNATE YEARS.
- 9.520 EXPERIMENTAL EMBRYOLOGY (4)** Mechanics of fertilization and growth. A review of important contributions in the field of experimental embryology. *Prerequisite*, 9.510. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1957 SPRING AND ALTERNATE YEARS.
- 9.521 ADVANCED GENETICS (4)** A consideration of salivary chromosomes, the nature of the gene, chromosomal irregularities, polyploidy, and mutations. Breeding experiments with *Drosophila* and small mammals will be conducted. *Prerequisite*, 9.507. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$5. 1958 FALL AND ALTERNATE YEARS.
- 9.799 THESIS RESEARCH IN BIOLOGY (3-6)**

Business Administration

Graduate work, leading to the degrees of Master of Business Administration and Doctor of Philosophy in Business Administration, is offered through the University's School of Business Administration. Degrees are awarded under the regulations of the Graduate School.

Professors: NATHAN A. BAILY (Dean of the School of Business Administration); NIKOS G. PHOTIAS; HAROLD B. WESS (Director of Program of the School of Business Administration). *Adjunct Professors:* HUGH C. BICKFORD; HARRY W. KETCHUM; ELMER C. KOCH; EUGENE C. MOYER; MYLES E. ROBINSON. *Associate Professor:* THEODORE H. LEVIN. *Assistant Professors:* ARTHUR R. CARNDUFF; DAVID S. FIELDS; ELOISE NELSON MAGAW; JOHN E. McGRATH; HARRY ROSENTHAL; CHARLES W. VAN WAY, JR. *Professorial Lecturers:* RUSSELL S. BERNHARD; HAL N. CARR; ALFRED D'ALESSANDRO; J. HARVEY DALY; LAWRENCE DOBROW; BERNARD T. DODDER; JACK P. DONIS; STANLEY R. DURKEE; ELIZABETH FAIRALL; LLOYD FLETCHER, JR.; EDWIN C. FORS; NELSON P. GRELLER; MAXWELL KAUFMAN; ROBERT W. KING; MELVIN E. LEWIS; EZEKIEL LIMMER; AUBREY R. MARRS; ARTHUR A. MAY; JOSEPH F. McCLOSKEY; FERD NAUHEIM; HOBART S. PERRY; THOMAS L. PHILLIPS; A. M. PROTHRO; JOHN R. RIGGLEMAN; JAMES ROTTO; JACOB SEIDENBERG; MILTON A. SMITH; CAREY WINSTON. *Lecturers:* JESSE E. AIKEN; A. MACGREGOR AYER; RALPH BAILEY; OSCAR BESSIO; DAVID BROOKS; HERBERT BROWN; J. FRANK CLEMENTS; LEO DAVID; EDWARD S. DAVIS; ELIZABETH TAYLOR EVANS; GEORGE M. FERRIS, JR.; ARTHUR M. FISHER; WILLIAM A. FURMAN, JR.; ROBERT E. GOLDSTEN; M. GEORGE GOODRICK; KARL C. GRUEN; JOHN HILL; HUNTER A. HOGAN, JR.; ELBERT T. HOVATTER; HARRY A. KAHN, JR.; ANNE G. KANTOR; ARNOLD M. KRONSTADT; SUE G. LERNER; GEORGE J. LINK; CURT C. MACK; FREDERICK A. MARSTELLER; JOSEPH MENSCH; SPENCER B. MEREDITH; DAVID L. MONTONNA; ELBERT Y. OLNEY; MILTON A. PEARL; WILLIAM C. PENNINGTON; JOHN PERRY; JEROME P. PICKARD; AARON ROSLOFF; DAVID SACHS; CLARK L. SIMPSON; ALBERT H. SMALL; ROBERT W. STRAUS; GEORGE E. STRONG; CHARLES W. TUCKER; FRED W. TUENMLER; M. BELMONT VER STANDIG; ANNETTE WARD; GEORGE C. WEBSTER.

GRADUATE DEGREES—Master of Business Administration and Doctor of Philosophy in Business Administration.

MASTER OF BUSINESS ADMINISTRATION

Prerequisites: 24 hours of prescribed undergraduate work in accounting, business administration, economics, and statistics. Students without this background must complete the necessary courses as part of the required work for the M.B.A. degree or pass proficiency examinations.

Course Requirements: Minimum of 30 hours of approved graduate work, including 10.556 Business Budgeting & Executive Control (3), 10.756-757 Seminar in Business Management ¹ and ² (6), and either 10.799 Thesis Seminar-Business Administration (3) or 10.758 or 10.759 Seminar in Human Relations in Business ¹ or ² (3).

Written Comprehensive Examinations: 3, including one in business management; one in a specific area of business administration; and one in another specific area of business administration or in an approved related field.

Other Requirements: Thesis or completion of 6 hours selected from 10.756-757 Seminar in Business Management ¹ and ² (6), and 10.758 or 10.759 Seminar in Human Relations in Business ¹ or ² (3) completed with a grade of at least B.

DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION

Course Requirements: Minimum of 72 hours of approved graduate work, at least 30 of which must be completed in residence at The American University. The following courses or equivalent are required: 10.756, 10.757, 10.758, 10.759, 10.556, 29.553, 10.560, 19.546, 19.547, 19.518.

Written Comprehensive Examinations: Five, including Business Management and Business Economics. The other three may be chosen from Business Administration, the social sciences, or other approved areas; not more than two being from outside of Business Administration.

Other Requirements: Proficiency examinations in two research tools (Accounting, Statistics, Languages, Mathematics), thesis and oral examination on thesis.

Graduate Courses

BASIC GENERAL COURSES

- 10.500 BUSINESS-GOVERNMENT RELATIONSHIPS (3)** How individual business men express views and demands to governmental agencies. How organizations determine membership views and adopt policies on business-government relationships. Advisory committees. Lobbying. FALL. SPRING.
- 10.501 LITERATURE OF BUSINESS ADMINISTRATION (3)** Reading and analysis of major contributions to philosophy, methodology, understanding of management, human relations, other basic areas. Group analysis, seminar type discussion. *Prerequisite, permission of instructor.* SPRING.

ACCOUNTING

- 10.511 CONSOLIDATED FINANCIAL STATEMENTS (3)** Third year principles course. Preparation of consolidated financial statements. Branch accounting; consolidations and mergers; foreign exchange. *Prerequisite, 10.311.* FALL.
- 10.512 COST ACCOUNTING ² (3)** Principles of industrial standard cost accounting and related systems which utilize predetermined rather than historical cost. Techniques of accumulating and recording data for cost control. *Prerequisite, 10.411.* SPRING.
- 10.522 AUDITING ²: PROFESSIONAL PRACTICE (3)** Preparation of the auditor's report. Auditing procedures, practices and reports of the professional public accountant, including the professional and ethical standards of public practice. *Prerequisite, 10.421.* SPRING.
- 10.530 ANALYSIS OF FINANCIAL STATEMENTS (3)** Analysis, interpretation of financial statements from the respective viewpoints of management, creditors, investors. Determination and interpretation of trends, ratios. Emphasis on case studies. *Prerequisite, previous accounting courses.* SUMMER.
- 10.531 TAXATION ¹ (3)** Economics of taxation Survey of U. S. tax system with emphasis on federal income taxes pertaining to individuals, partnerships, trusts. Class preparation of returns and forms. *Knowledge of basic accounting desirable.* FALL. SPRING.
- 10.532 TAXATION ² (3)** Specially designed for practicing lawyers, accountants. Federal income, excess-profits taxes on corporations; estate, gift taxes; state and local property, excise taxes. Actual forms prepared. *Prerequisite, 6 hours of accounting and 10.531.* SPRING.
- 10.533 TAXATION ³ (3)** Tax practice, procedure. How to find facts, develop law. Practice before all Internal Revenue offices; protesting agents' reports; claims for refund. Tax Court procedure. Federal Court procedure. *Prerequisite, 10.531 and 10.532 (the latter may be taken concurrently with this course).* SPRING.
- 10.534 SYSTEM DESIGN & INSTALLATION (3)** Techniques of analyzing, designing systems for effective managerial control. Adapting accounting procedures to organizations of various types, sizes. Demonstrations of important machine methods. *Prerequisite, 10.312, 10.411, 10.421.* FALL.
- 10.535 ADVANCED ACCOUNTING (3)** Third year principles. For advanced accounting, finance students, lawyers. Partnerships through liquidation. Estates, trusts. Accounting for "sick" businesses; realization and liquidation reports. *Prerequisite, 10.311.* SPRING.
- 10.536 GOVERNMENTAL ACCOUNTING (3)** Study of accounting systems used by governments, emphasizing expenditures through the fund method; sources, control of cash; budget, statement preparation. Primarily municipal level. *Prerequisite, 10.311.* SPRING.
- 10.538 CONTROLLERSHIP IN BUSINESS (3)** Controller's function in business. Emphasis on interpretation of accounting aspects of managerial problems and reporting thereon. Role as staff member of the management team. *Prerequisite, advanced work in accounting and business administration.* 1958 SPRING AND ALTERNATE YEARS.
- 31.506 INSTITUTE OF C.P.A. EXAMINATION REVIEW (6)** See page 61.
- 31.023 INSTITUTE ON FEDERAL TAXES (No credit)**

BUSINESS ECONOMICS

SEE 19.546 ECONOMIC ANALYSIS IN BUSINESS, 19.547 FOUNDATIONS OF BUSINESS FORECASTING, under *Economics*.

BUSINESS MANAGEMENT

- 10.556 BUSINESS BUDGETING & EXECUTIVE CONTROL (3)** Budgeting as a managerial tool for analysis, planning, coordination, control. Development of budgeting. Required of M.B.A. candidates. *Prerequisite, 6 hours in accounting and 3-6 in statistics.* SUMMER. FALL. SPRING.

BUSINESS ADMINISTRATION

- 10.557 **OPERATIONS RESEARCH IN BUSINESS MANAGEMENT (3)** Operations Research as a scientific aid to executive decisions. Origins, development, basic concepts, approach. Organization, function of operations research group. Areas of application. Limitations. FALL.
- 10.538 **CREDIT UNION LEADERSHIP (3)** History, philosophy, institutional functions. Training in providing cooperative savings and loan services. How to organize, interest members in control and utilization of their monies. Developing working relationships with regulatory agencies, credit union federations. Building effective public relations. SPRING.
- 10.559 **ADVANCED CREDIT UNION OPERATION (3)** Key techniques for furthering growth of credit unions and training staffs. Office practices and controls, personal counseling, publicity methods, psychology, legal aspects. FALL.
- 10.560 **THE PRACTICE OF MANAGEMENT (3)** Analysis of principles, characteristics of successful administration. Entrepreneurial functions. Formation of policy. Long-term planning. Responsibilities of management. 1957 SPRING.
- 31.005 **INSTITUTE ON PROFITABLE MANAGEMENT FOR SMALL BUSINESS (No credit)**
- 31.551 **INSTITUTE ON RECORDS MANAGEMENT (2)** See page 61.

FINANCE

- 10.566 **ADVANCED BUSINESS FINANCE (3)** Case problems on financing current operations, long-term needs of business firms. Capital structures; valuation, marketing of securities. Reserve, dividend policies. Promotion, expansion, combination. Recapitalization, reorganization. *Prerequisite*, 10.466 and 10.211 or 10.400. SPRING.
- 10.568 **INVESTMENT BANKING (3)** Functions, techniques of investment banking. Underwriting, competitive bidding, private negotiation, securities exchanges, the over-the-counter market, government regulations. FALL.
- 10.569 **INVESTMENT ANALYSIS (3)** General considerations in security selection. Timing: Dow Theory, dollar averaging, formula planning. Market fluctuations: measurement, analysis. Information sources. Categories of securities. *Prerequisite*, basic understanding of securities from experience or from 10.466 or 10.467. SPRING.
- 10.570 **ADVANCED INVESTMENT ANALYSIS (3)** Securities analysis. Investment approaches, theories. Portfolio construction, management. Emphasis on current investment trends, practical techniques for successful investment. *Prerequisite*, 10.569. FALL.

INDUSTRIAL MANAGEMENT

- 10.581 **MOTION, TIME, METHODS STUDY (3)** Principles, analysis of work methods and establishment of standard methods of operation. Measurement of efficiency. Procedure for installation of programs. FALL.
- 10.582 **INDUSTRIAL PLANT PLANNING (3)** How to get a manufacturing unit into operation. Location of factories. Layout planning principles and techniques. Industrial buildings. Relationships with production engineers, architects, contractors. 1957 SPRING.
- 10.583 **MATERIALS HANDLING (3)** Principles, operating problems, training programs, cost elements, selection and use of equipment. Case studies from business, industry, the military. SPRING.
- 10.584 **MANAGEMENT ENGINEERING (3)** Scope, history, functions of management engineering. Types of management engineers. Training and experience essential to successful careers in management engineering. *Prerequisite*, advanced work in business administration. 1956 FALL.

INDUSTRIAL RELATIONS AND PERSONNEL MANAGEMENT

- 10.591 **WAGE ADMINISTRATION & JOB EVALUATION (3)** Wage and salary determination and administration. Job descriptions, job evaluation, job classification. Wage, salary structure; efficiency rating; incentive system; legislation; occupational information. *Prerequisite*, 10.491. SPRING.
- 10.592 **INDUSTRIAL RELATIONS (3)** Management techniques for dealing with organized labor, achieving labor-management cooperation. Unions; development, objectives, policies, tactics. Management resources. Contract negotiation, administration. Government regulation. *Prerequisite*, 10.491. SUMMER. SPRING.
- 10.593 **ADVANCED INDUSTRIAL RELATIONS (3)** Methods by which management negotiates, administers collective bargaining agreements. Application of principles of contract negotiation through role playing, mock bargaining sessions. *Prerequisite*, 10.592 or equivalent experience. SUMMER.
- 10.594 **SUPERVISION IN INDUSTRY (3)** How to supervise people effectively. Supervisory training; developing responsibility, assigning authority. Supervision and effective communication. Personnel, control, training, production functions; safety, morale. Union contract administration. *Prerequisite*, 10.491. FALL.
- 10.595 **COMMUNICATION & EMPLOYEE PRODUCTIVITY (3)** How effective employee-management communication can increase employee productivity. Human factors in administration. Techniques of program evaluation and correction. Unions. Theory, case studies. *Prerequisite*, 10.491. SPRING.
- 31.001 **INSTITUTE ON EMPLOYEE COMMUNICATION (No credit)**

MARKETING

- 11.501 **CONSUMER MARKETS (3)** For marketing, real estate, retailing, economics students. Channeling of consumer expenditures through retail stores. Store location. How retail enterprises can increase their share of consumer dollar. FALL.

- 11.502 MARKET RESEARCH (3)** Collection, interpretation, presentation of data as basis for marketing decisions. Techniques for analyzing size, character of markets. Sampling, questionnaires, surveys, use of company, external records. *Prerequisite*, 11.401 and 69.200. SPRING.
- 11.601 MARKETING MANAGEMENT (3)** Problem approach to marketing at policy level. Pricing. Selection of distribution channels, territories. Competition; government controls. Organization, direction of sales campaigns. Marketing tools of management. 1957 SPRING.

ADVERTISING

- 11.511 SALES PROMOTION (3)** Methods and devices to increase effectiveness of demand created by merchandising, mass advertising, personal selling. Emphasis on techniques aiding development of individual selling abilities. *Prerequisite*, 11.411. SPRING.
- 11.512 ADVERTISING COPY (3)** How to write advertisements which increase sales. Distinctive problems of various types of copy analyzed and methods of copy testing evaluated. *Prerequisite*, 11.411 SPRING.
- 11.513 ADVERTISING LAYOUT & PRODUCTION (3)** Arrangement of headlines, copy, illustrations to achieve balance, gaze motion, distinctiveness, legibility. Type, paper, production processes. Practice in visualizing, laying out, scheduling, producing. 1957 SPRING.
- 11.514 ADVERTISING MEDIA (3)** Analysis of media. Selection in terms of reaching desired markets. Operations of advertising departments, scheduling requirements, methods of evaluation, rate structures. 1957 FALL.
- 11.515 DIRECT MAIL SELLING (3)** Principles, practices of profitable direct advertising. When, how to use direct mail selling. How to program, prepare, buy direct mail pieces. Postal regulations. 1957 SPRING.
- 11.520 ADVERTISING AGENCY MANAGEMENT (3)** Effective agency management, finance, accounting. Long-range planning. Advertiser-agency relationships. Personal work control methods. Merchandising of advertising programs. *Prerequisite*, permission of instructor. 1958 SPRING.

FOREIGN TRADE

- 11.526 FOREIGN TRADE (3)** American markets for foreign commodities; foreign markets for American products. Types of organizations. Market analysis. Securing dealers, agents. Financing sales; credits; collections. Information sources. *Prerequisite*, 19.400. FALL.
- 11.527 EXPORT-IMPORT PROCEDURES (3)** Buying and selling in foreign trade: practices, procedures. U. S., foreign government regulations. Foreign trade law. Documents, banking, insurance. Shipping, packaging, tariff problems. Advertising, sales promotion. *Prerequisite*, 11.526. SPRING.

RETAILING

- 11.536 RETAIL STORE MANAGEMENT & MERCHANDISING (3)** How to make money in retailing. Policy making. Merchandising. General administrative course; students analyze operations of actual store from viewpoint of obtaining maximum profit. FALL.
- 11.537 STORE ORGANIZATION & OPERATION (3)** Problems of store management faced by operating executives. Organizations; location; layout; expense; personnel; receiving; packing; wrapping, delivery; customer complaints; protection; maintenance; mail, telephone orders. SPRING.
- 11.538 FASHION IN RETAILING (3)** Fashion in selection, promotion, selling of merchandise. Effect on consumers, manufacturers, retailers. Fashion cycles. Current fashions; work of prominent designers. Career opportunities for men, women. FALL.
- 11.539 MERCHANDISING HOME FURNISHINGS (3)** How to merchandise home furnishings. Analysis of quality, style, design. Price lines. Interior decoration: planning home interiors. Color, form, function. Home furnishing markets. SPRING.
- 11.540 RETAIL BUYING (3)** The buyer: functions, responsibilities. Pre-buying preparation; selecting new lines; ordering. Resident buying. Buying, merchandising. Problems in buying various types of goods. 1956 FALL.
- 11.541 CONSUMER PRODUCTS (3)** Basic information about consumer products; production, use characteristics; comparative costs; consumer appeals. Basic materials analysis. For all concerned with successful sale of consumer products to public. 1957 SPRING.
- 11.542 MATHEMATICS OF MERCHANDISING (3)** Interpretation of operating figures applied to selling departments or individual businesses. Analysis of factors responsible for profits, losses. Emphasis on retail method of inventory. 1957 FALL.

FOOD MARKETING

- 11.545 FOOD PRODUCTS (3)** Product information as a tool for effective buying, selling and display. Sources, markets, grades. Agricultural research and development. Resources of U. S. Department of Agriculture.
- 11.546 FOOD MERCHANDISING (3)** Buying procedures; market operations; costs; profit margins. Sales planning; pricing; advertising; sales promotion. Relations with suppliers. Having the right items at the right time.
- 11.547 WAREHOUSING & STOCK CONTROL (3)** Warehouses as distribution centers; location, organization, relation to central office and stores. Regulation of controllable costs through increased mechanization, improved work methods, layout, scheduling. Inventory control.
- 11.548 FOOD STORE MANAGEMENT (3)** Administration of food stores. Supervision, development of personnel. Expense control. Customer services. Ordering, receiving, storing, stocking, displaying, marking. Housekeeping, safety. Record keeping, reports. Community relations.

SALES MANAGEMENT

- 11.551 **SALES MANAGEMENT (3)** Organization of sales department. Qualifications, duties of sales manager. Recruitment, selection, training of salesmen. Planning, conducting sales campaigns. Sales trend studies, forecasts. Sales cost, control. 1956 FALL.
- 11.552 **DISTRIBUTION COST ANALYSIS (3)** Marketing data as management tools to reduce distribution costs, increase selling efficiency. Analyzing distribution costs, profits by products, customers, territories. Effect on over-all position of firm. *Prerequisite*, 11.502. 1957 FALL.

REAL ESTATE

- 11.576 **REAL ESTATE PRACTICE ¹ (3)** Practical operation of a brokerage business. Economic, functional, ethical, legal status, responsibilities of broker. Local regulations. Appraising residential, income properties. Financing; taxation; construction; finished loans. FALL.
- 11.577 **REAL ESTATE PRACTICE ² (3)** Continuation of 11.576. Advertising. Listings. Creative selling, ground sales. Developments. Leases; residential, commercial. Sales contracts, settlements. SPRING.
- 11.578 **REAL ESTATE LAW (3)** Legal aspects of real estate transactions. Requirements in acquisition, encumbrance, transfer. Rights, obligations of parties in transactions. Survey of laws, analysis of cases, statutory provisions. FALL. SPRING.
- 11.579 **HOME BUILDING (3)** Constructing a home. Site selection, acquisition. Architect's duties, responsibilities. Design, building codes, permits. Construction materials. Setting, landscaping. Costs, financing. Selection of builder, building contracts, bonding. FALL.
- 11.580 **MORTGAGE FINANCING (3)** History of mortgage lending. Evaluation of loan applications, property appraisal. Underwriting mortgage risk, selling, loans, correspondent-investor relationships. Construction loans. Government financing. Closing, servicing loans. New business. FALL.
- 11.581 **REAL ESTATE MANAGEMENT (3)** How to manage property. Property management as specialized branch of real estate. Management of commercial, dwelling units. Neighborhood analysis, tenant selection, maintenance, repair. Public relations. SPRING.
- 11.582 **LAND PLANNING & USE (3)** Land values, utilization. Location problems of consumers, businesses, industries, households. Changes in land use patterns produced by market forces, public policies. SPRING.
- 11.583 **REAL ESTATE MARKET ANALYSIS (3)** How to measure demand and supply for real estate in a local market. Sources of information. Population analysis. Forecasting techniques. *Prerequisite*, 11.476 and 11.502. 1956 FALL.
- 11.584 **REAL ESTATE APPRAISAL ¹ (3)** *Official demonstration case-study course of the American Institute of Real Estate Appraisers.* Fundamental theories, principles, mathematics of appraising. Qualifications of appraiser. Satisfactory grade accepted by Appraisal Institute in lieu of Required Examination No. 1. *Prerequisite*, 12 hours of real estate courses or equivalent experience. SPRING.
- 31.504 **INSTITUTE ON REAL ESTATE APPRAISAL ² (3)** See page 61.

INSURANCE

- 11.586 **LIFE INSURANCE ¹ (3)** Fundamental principles. Analysis of companies, contracts, costs to policyholders. Premium computation, valuation, apportionment of surplus. State regulations, laws, judicial decisions affecting life insurance. Course preparatory for Part A of the Chartered Life Underwriter's examination. 1956 FALL.
- 11.587 **LIFE INSURANCE ² (3)** Fundamentals applied to estate planning, group insurance. Methods of computing mortality tables, premium, reserves. History of life insurance; its role in U. S. economic development. Course preparatory for Part A of the Chartered Life Underwriter's examination. 1958 SPRING.
- 11.588 **PROPERTY INSURANCE (3)** Analysis of contracts, insurable interest. Endorsements: clauses, forms; insuring consequential loss. Reinsurance. Loans, adjustments, settlements; rates, reserves. Ocean, inland marine insurance. *Desirable background for C.P.C.U. examination.* FALL.
- 11.589 **CASUALTY INSURANCE (3)** Insurance coverage for general liability, automobile, property damage, aviation, theft, dishonesty, fidelity, credit. Underwriting; rating procedures. Prospecting, sales approaches, closings. *Desirable background for C.P.C.U. examination.* SPRING.

TRANSPORTATION*

- 12.561 **RAIL TRANSPORTATION (3)** Railroad organization, administration, operation, traffic, finance in the U. S. Problems of consolidation and reorganization. Railroad labor. *Prerequisite*, 12.460. FALL.
- 31.022 **RAIL TRANSPORTATION INSTITUTE (No credit)**
- 12.562 **MOTOR TRANSPORTATION (3)** Highway system and commercial motor transportation in the U. S. Construction, administration, finance. Economics of private automobile and truck operation. *Prerequisite*, 12.460. FALL.

* A limited number of Arthur Godfrey Air Fellowships for laboratory practice to qualify for private pilot's licenses are available to students specializing in transportation. Students interested apply to John E. McGrath, Director of Transportation Studies, 1901 F Street, N.W.

- 12.563 OCEAN TRANSPORTATION (3)** Economic characteristics, functions, position of the world's ocean shipping, with particular reference to the U. S. Security and national policy aspects of the industry. *Prerequisite*, 12.460. SPRING.
- 12.564 AIR TRANSPORTATION (3)** Operation, traffic, rates, government action in air transportation. Problems in management of air-carriers. *Prerequisite*, 12.460. FALL.
- 31.021 AIR TRANSPORTATION INSTITUTE (No credit)**
- 31.025 OCEAN TRANSPORTATION AND PORT OPERATION INSTITUTE (No credit)**
- 12.566 TRAFFIC MANAGEMENT ¹ (3)** Factors determining rates and services for commercial shippers. Analysis of tariffs, classification, routing of traffic, shipping documents, liability and claims. *Prerequisite*, 12.460. FALL.
- 12.567 TRAFFIC MANAGEMENT ² (3)** Economic factors underlying rate-making. Duty of carriers to establish reasonable and non-discriminatory rates and services. Routing and misrouting of freight. *Prerequisite*, 12.460. SPRING.
- 12.568 TRANSPORTATION REGULATORY AGENCIES (3)** Organization, procedure of transportation regulatory commissions. Consideration of Administrative Procedure Act, rules of procedure, Practitioners code of ethics, due process and specific regulation problems. *Prerequisite*, 12.460. SUMMER.
- 12.570 AIRPORTS (3)** (Formerly 19.570) Airport organization, management, operation, and traffic, including airlines operation, traffic control, and weather services. Questions of location and construction. *Prerequisite*, 12.460. SPRING.
- 12.571 TRENDS AND PROBLEMS IN TRANSPORTATION (3)** (Formerly 19.571) Current issues facing the various modes of transportation, in traffic, operation and regulation. *Prerequisite*, 12.460. SPRING.
- 12.572 MILITARY TRANSPORTATION (3)** Organization, coordination of military transportation. Relations with civilian agencies. Use of civilian carriers. Capabilities of military transportation systems. *Prerequisite*, 12.460. SPRING.
- 31.020 INDUSTRIAL TRANSPORTATION AND TRAFFIC MANAGEMENT INSTITUTE (No credit)**

SEMINARS

- 10.711 SEMINAR IN ACCOUNTING THEORY (3)** Analysis of current accounting problems. Review of current literature. For students preparing for comprehensive examinations in accounting. 1957 SPRING.
- 10.712 SEMINAR IN INTERNAL AUDITING (3)** Philosophy, purpose of internal auditing. Position in organization; areas of concern of internal auditor. Reports. Relationship to increased operating efficiency, top-level policy formulation and administration. *Prerequisite*, courses in auditing, cost accounting, and business administration. FALL.
- 11.745 SEMINAR IN FOOD DISTRIBUTION (3)** Trends in food store operation. Problems of top-management. What food executives can do to reduce costs, increase efficiency and profits, and lower consumer prices. SPRING 1958.
- 10.756 SEMINAR IN BUSINESS MANAGEMENT ¹ (3)** Development of executive skills of students through seminar approach and case problem method. Emphasis on problems of chief administrative officers and their effective solution. Required of M.B.A. candidates. FALL.
- 10.757 SEMINAR IN BUSINESS MANAGEMENT ² (3)** Continuation of but may be taken before 10.756. Development of executive skills. Seminar approach and case problem method. Emphasis on problems of chief administrative officers and effective solutions. Required of M.B.A. candidates. SPRING.
- 10.758 SEMINAR IN HUMAN RELATIONS IN BUSINESS ¹ (3)** Case problems and seminar approach to increase students' capacity to work effectively with superiors, equals, subordinates. Importance of human relations in successful business operation. Required of M.B.A. candidates electing non-thesis option. FALL. SPRING.
- 10.759 SEMINAR IN HUMAN RELATIONS IN BUSINESS ² (3)** Continuation of 10.758: How to get policy decisions executed through people. 1957 SPRING.
- 10.760 SEMINAR FOR CASE CONFERENCE LEADERS (3)** How to conduct effective conferences and seminars by the case problem method. Case problems used cover wide range of business problems and situations. *Prerequisite*, at least 6 hours of 10.756, 10.757, 10.759, or equivalent. SPRING.
- 11.736 SEMINAR IN RETAILING MANAGEMENT (3)** Problems of managing retail enterprises analyzed through case studies. Students attempt to develop managerial programs or bases for managerial decisions. Oral and written reports. 1957 SPRING.
- 12.760 SEMINAR IN TRANSPORTATION (3)**
- 10.799 THESIS SEMINAR IN BUSINESS ADMINISTRATION (3)**

Chemistry

Professor: LEO SCHUBERT (Chairman). *Adjunct Professor:* DANIEL BANES. *Associate Professor:* MARY H. ALDRIDGE. *Lecturers:* MAX HELLMANN; JOHN D. HOFFMAN; LAWRENCE M. KUSHNER; N. L. LAHIRY.

GRADUATE DEGREE—Master of Science.

Course Requirements: Minimum of thirty hours of approved graduate work, including 6 in 15.799 Thesis Research in Chemistry.

Written Comprehensive Examinations: Two selected from the following fields: biochemistry, inorganic chemistry (including qualitative requirements analysis), organic chemistry, physical chemistry, quantitative analysis.

Other Requirements: Reading proficiency in technical German, French, or Russian; thesis based upon 15.799 Thesis Research and oral defense of thesis.

Graduate Courses

- 15.510 ADVANCED INORGANIC ANALYTICAL CHEMISTRY (3)** Systematic treatment of modern analytical methods. *Prerequisite*, 15.201. 3 hours of lecture. 1956 FALL AND ALTERNATE YEARS.
- 15.520 ADVANCED ORGANIC CHEMISTRY (4)** Theoretical and systematic organic chemistry. *Prerequisite*, 15.301. 4 hours of lecture. 1956 FALL AND ALTERNATE YEARS.
- 15.522 QUALITATIVE ORGANIC ANALYSIS (4)** Identification of organic compounds through systematic procedures. *Prerequisite*, 15.301. 2 hours of lecture, 6 hours of laboratory. Laboratory fee, parttime students, \$10. 1957 SPRING AND ALTERNATE YEARS.
- 15.524 ORGANIC PREPARATIONS (3)** Preparative methods of organic chemistry. Emphasis on techniques such as vacuum distillation, chromatography, extraction. Reference to original literature. *Prerequisite*, 15.301. 1 hour of lecture, 6 hours of laboratory. Laboratory fee, parttime students, \$10. Not offered 1956-1957.
- 15.526 HETEROCYCLIC COMPOUNDS (3)** Chemistry of pyridine, pyrrole, quinoline, other heterocyclic compounds. 3 hours of lecture. Not offered 1956-1957.
- 15.528 QUANTITATIVE ORGANIC ANALYSIS (3)** Semi-micro determination of carbon, hydrogen, nitrogen, halogen, and certain functional groups. *Prerequisites*, 15.201 and 15.301. 1 hour of lecture, 6 hours of laboratory. Laboratory fee, parttime students, \$10. Not offered 1956-1957.
- 15.540 COLLOID & SURFACE CHEMISTRY (3)** Application of physio-chemical principles to colloidal systems. Solid and liquid surfaces, adsorption, large molecules in solution, structure of natural and synthetic colloids. *Prerequisite*, 15.401. 3 hours of lecture. Not offered in 1956-1957.
- 15.542 CHEMICAL KINETICS (3)** Reaction rates in gaseous and liquid systems, energy of activation, catalysts. *Prerequisite*, 15.401. 3 hours of lecture. Not offered 1956-1957.
- 15.544 MOLECULAR STRUCTURE (3)** Structure of molecules through the study of physical techniques and principles. *Prerequisite*, 15.401. 3 hours of lecture. Not offered 1956-1957.
- 15.546 CHEMICAL THERMODYNAMICS (3)** Principles of thermodynamics applied to simple chemical systems and solutions. Partial molal quantities. *Prerequisite*, 15.401. 3 hours of lecture. Not offered 1956-1957.
- 15.550 ADVANCED INORGANIC CHEMISTRY (3)** Descriptive inorganic chemistry including the periodic table, coordination compounds, hydrolysis, related matters. *Prerequisite*, 15.201. 3 hours of lecture. 1957 SPRING AND ALTERNATE YEARS.
- 15.556 RADIOCHEMISTRY (3)** Radioactivity, isotopes, fundamental particles of matter, instruments used for radioactivity and tracer chemistry. *Prerequisite*, 15.401. 3 hours of lecture. Not offered 1956-1957.
- 15.560 BIOCHEMISTRY ¹ (4)** Fats, proteins, carbohydrates, and their digestion. Enzymes, vitamins, chemotherapy, immunology. *Prerequisite*, 15.301. 3 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$10. 1957 FALL AND ALTERNATE YEARS.
- 15.561 BIOCHEMISTRY ² (4)** Biological antagonists, respiration, metabolism of foods. Hormones, nutrition, medicine, the nervous system. *Prerequisite*, 15.560. 3 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$10. 1958 SPRING AND ALTERNATE YEARS.
- 15.799 THESIS RESEARCH IN CHEMISTRY (6)**

Communication

Professor: WILLETT MAIN KEMPTON (Chairman). *Adjunct Professors:* LAWRENCE W. BECKERMAN; LUDWIG CAMINITA, JR.; JAMES R. MOCK; FRANK H. MORTIMER; HAROLD STEPLER. *Associate Professor:* THEODORE H. LEVIN. *Assistant Professors:* H. D. CRAWFORD; HARVEY POPE. *Professorial Lecturers:* FRANCIS P. DOUGLAS; FRANKLIN DUNHAM; STANLEY FIELD; PAUL R. HILL; J. STANLEY MCINTOSH; CARL L. SHIPLEY. *Lecturers:* PATRICIA JEAN BEALL; CHARLES BISHOP; ROBERT BORDLEY; HOWARD R. HARING; ROBERT S. MACK; JOHN F. MCLEOD; JAMES J. MCPHERSON; RUSSELL TORNABENE; EDWIN TRIBBLE.

GRADUATE DEGREE—Master of Arts.

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 17.799 Thesis Seminar-Communication (3-6).

Written Comprehensive Examinations: 3, including one in a communication survey field; one in a specialized field in journalism, public relations, television and radio, visual communication or graphic arts; and the third in another specialized field of communication, or in a related subject field.

Other Requirements: Thesis.

Graduate Courses

COMMUNICATION THEORY

- 17.500 COMMUNICATION HISTORY (3)** Evolution and development of newspapers, magazines, radio, motion pictures, and television as communication media. Influence of historic backgrounds on contemporary ethics and practices. SPRING.
- 17.501 COMMUNICATION LAW (3)** Current legal problems and theory of controls in journalism, visual communication, television and radio. Analysis of libel suits, copyright infringements. No previous knowledge of law required. FALL.
- 17.507 FREEDOM OF INFORMATION (3)** Investigation of access and barriers to information at local, state, national, and international levels. Information access rights and responsibilities of communication media. Individual research projects. 1956 FALL AND ALTERNATE YEARS.

JOURNALISM

- 17.520 EDITING: NEWSPAPERS & PERIODICALS (3)** Training to develop editorial judgment and skills in processing material for publication. Study of problems and practices in making assignments, editing copy, handling departments. SPRING.
- 17.521 EDITORIAL WRITING (3)** Practice in writing editorials on current subjects. Publication opportunities. Study of newspaper, trade publications, and magazine editorial policies. Analysis of editorial columns and interpretive reviews. SPRING.
- 17.522 MAGAZINE JOURNALISM (3)** Survey of contemporary magazines; various types of periodicals, their backgrounds, trends, functions; staff organization, free lance sources, editorial policies and practices. 1957 AND 1959 SUMMER.
- 17.523 PICTORIAL JOURNALISM (3)** Study of photographic requirements and techniques of newspapers, magazines, syndicates, and trade publications. Training in professional planning, taking, and editing of news and feature photographs. FALL.
- 17.524 ADVANCED NEWS REPORTING (3)** Problems of specialized reporting. Washington and foreign news correspondence. Students cover assignments in these fields, and carry on individual research projects. SPRING.
- 17.525 FEATURE WRITING (3)** Practice in writing feature articles for newspapers, magazines, and business publications. Study of markets and slanting techniques. Preparation and revision of articles for publication. SUMMER. FALL. SPRING.
- 17.526 ADVANCED FEATURE WRITING (3)** Preparation, discussion, and revision of articles for publication by magazines, business publications, syndicates, and newspapers. Author-editor relationship for non-fiction books. *Prerequisite, 17.525.* SPRING. FALL.
- 17.528 TV-RADIO NEWSWRITING (3)** Newscasting functions and organization of station and network news staffs. Emergency and special events activities. Practical experience using actual wire copy and source materials. SPRING.

- 17.530 **BUSINESS JOURNALISM (3)** Periodicals, newspapers devoted to business and industry; editorial problems and practices of publishing trade journals and house organs. 1956 AND 1958 SUMMER.
- 17.532 **GRAPHIC ARTS (3)** Distinguishing characteristics of type, affinity of type faces, composition, layout, typographic design. Printing, photoengraving, gravure, and lithography. Basic information for planning pamphlets, books, folders. FALL.
- 17.533 **GRAPHIC ARTS: ADVANCED (3)** Analysis of printing for effectiveness in layout and design, use of illustrations. Laboratory work in the production of books, pamphlets, and folders. SPRING.

PUBLIC RELATIONS

- 17.540 **PUBLIC RELATIONS: THEORY & PRACTICE (3)** Survey of public information and public relations programs. Media employed for mass communication—advertising, press, radio, periodicals, pamphlets, films. Case studies of current practices. SUMMER. FALL. SPRING.
- 17.541 **PUBLICITY WRITING (3)** Practical writing techniques for public relations, publicity, and promotional programs. Preparation of articles for newspapers, magazines, and trade journals; radio scripts; promotional booklets, press relations. FALL.
- 17.542 **PROMOTIONAL CAMPAIGNS (3)** Case studies of promotional methods for social organizations, business, and government. Analysis of specific public relations problems. Development of a promotional campaign by each student. SPRING.
- 17.543 **PUBLIC SERVICE BROADCASTING (3)** Television and radio as media for public relations. Problems of various organizations in arranging public service broadcasts; spot announcements, interviews, sponsored versus sustaining programs. SUMMER. SPRING.
- 17.544 **PUBLIC RELATIONS IN GOVERNMENT (3)** Analysis of objectives and problems of governmental agencies in their relations with various publics. Influence of public information on efficiency of administration. SPRING.
- 17.545 **PUBLIC RELATIONS IN BUSINESS (3)** Media and techniques for public relations; emphasis on business and industrial relationships with their various publics—such as labor, trade, dealer, customer, stockholder, and community. SUMMER. SPRING.
- 17.640 **PUBLIC RELATIONS POLICIES (3)** Formulation of policies for long-range public relations programs in business, trade associations, social and civic organizations, federal agencies. Methodology in implementing policy and evaluating results. 1956 FALL AND ALTERNATE YEARS.

TELEVISION AND RADIO

- 17.560 **TV-RADIO DRAMATIC WRITING (3)** Special techniques required for dramatic scripts—sketches, originals, adaptations. Emphasis on plotting, characterization, dialogue, pacing, mood. Use of music and sound for dramatic effects. SUMMER.
- 17.561 **TV DRAMATIC WRITING (3)** Advanced study in the practical application of principles in writing all types of dramatic television scripts. FALL.
- 17.562 **TV WRITING: ADVANCED (3)** Preparation of written materials for television. Differences between television and radio scripts; research methods used for writing commercials, informational programs, and dramatic shows. *Prerequisite, 17.361 or equivalent.* SPRING.
- 17.563 **TV STUDIO OPERATIONS (3)** Relationship of cameras, lighting, staging and audio equipment to TV studio production; differences between station and network operations. Laboratory fee, all students, \$3. FALL.
- 17.567 **ADVANCED TV-RADIO ACTING (3)** Advanced study of talent problems and acting before cameras and microphones in studio situations. Laboratory fee, parttime students, \$3. SPRING.
- 17.569 **ADVANCED TV-RADIO PRODUCTION & DIRECTION (3)** Advanced study of production problems under studio conditions. Laboratory fee, parttime students, \$5. FALL.
- 17.570 **TV-RADIO MANAGEMENT (3)** Broadcasting as a business; network affiliation versus independent operation; training a station staff; labor problems; functions and interrelationships of broadcasting departments; standards of practice. SPRING.
- 17.571 **TV-RADIO ADVERTISING (3)** Television and radio advertising and selling techniques. Advertising agencies—organization and functions; ratings, rate cards, contracts; commercial announcements, programs; audience, market, product analysis; sales campaigns. FALL.
- 17.572 **TV PROGRAMMING (3)** Audience reactions; program building, traffic, scheduling for stations and networks. Procedures used in studio and remote productions. Usefulness of films and visual materials. Studio observation. SUMMER.
- 17.573 **TV WORKSHOP (3)** Training in all phases of television studio production, including script writing, acting, directing, and producing. Enrollment limited; written application required in advance. Laboratory fee, all students, \$30. FALL.
- 17.574 **TV PRODUCTION LABORATORY (3)** Experimental program formats and research in studio production methods. Application of dramatic principles to television situations. Integration of motion picture, slides, and special visual effects. Enrollment limited; written application required in advance. Laboratory fee, all students, \$30. SPRING.
- 17.580 **RECORDING & EDITING PROBLEMS (3)** Planning, producing, editing taped programs for multi-station broadcast. Practical problems in program research; individual and group projects. *Prerequisite, permission of department chairman.* SPRING.

COMMUNICATION

- 17.660 EDUCATIONAL TV-RADIO (3)** Methods of using radio and television as teaching media; sources of programs; creation of instructional materials. 1957 FALL AND ALTERNATE YEARS.
- 17.661 TEACHING WITH TELEVISION (3)** Nature of educational telecasts. Scope of impact at all school levels; integration with curricula. Adult viewing; courses for college credit. Programming trends in educational telecasting. 1956 FALL AND ALTERNATE YEARS.
- 17.662 TV IN THE PUBLIC INTEREST (3)** Informational telecasts, both non-profit and commercial. Analysis of current public service programs; educational TV; comparisons of U. S. and foreign programming. SPRING.

VISUAL MEDIA

- 17.510 HISTORY OF MOTION PICTURES (3)** Motion pictures from their invention to the present. Films emphasize technical and aesthetic developments for students in history, sociology, and communication. Laboratory fee, all students, \$3. FALL.
- 17.513 VISUAL COMMUNICATION (3)** Basic problems of picturing abstract ideas and information through the audio-visual arts; latest developments in cinema, graphics, TV, etc., for advertising, education, public relations. SPRING.
- 17.514 AUDIO-VISUAL TECHNIQUES (3)** Workshop course in selection and use of audio-visual materials for specific communication problems. SUMMER.
- 17.515 MOTION PICTURE WORKSHOP (3)** Production and use of films for television; theory, observation and practice with lighting, audio effects, camera operation on sound stage in studio. Laboratory fee, all students, \$15. FALL.
- 17.516 TV FILM PRODUCTION (3)** Advanced course in production and use of motion pictures in television. Laboratory training in editing and sound recording. Actual preparation of films for television stations. *Prerequisite, permission of departmental chairman.* Laboratory fee, all students, \$15. SPRING.

SEMINARS

- 17.720 RESEARCH SEMINAR IN JOURNALISM (3)**
- 17.740 RESEARCH SEMINAR IN PUBLIC RELATIONS (3)**
- 17.760 RESEARCH SEMINAR IN BROADCASTING (3)**
- 17.799 THESIS SEMINAR IN COMMUNICATION (3-6)**

Economics

Professors: ERNST CORRELL; MELVILLE J. ULMER (Chairman). *Adjunct Professors:* EDWARD L. ALLEN; LLOYD D. BLACK; PETER G. FRANCK; SIMON NAIDEL; GUSTAV PECK; MURRAY ROSS; AMOS E. TAYLOR; OSCAR WEIGERT. *Assistant Professor:* DANIEL L. SPENCER. *Professorial Lecturers:* GEORGE W. BROOKS; L. L. ECKER-RACZ; LYNN R. EDMISTER; J. HERBERT FURTH; RAYMOND W. GOLDSMITH; CHARLES MERWIN; FRANK TAMAGNA. *Lecturers:* QUINCY ADAMS; JOHN H. ADLER; L. JAY ATKINSON; MANUEL EBER; W. DUANE EVANS; PAUL FISHER; WILLIS T. GEHRKE; DONALD HORTON; VLADIMIR KATKOFF; SAMUEL L. KATZ; SAR A. LEVITAN; LEONARD LINSENMAYER; YVES MARONI; ROBERT MARTIN; VIRGIL SALERA; JULIUS SHISHKIN; EMIL G. SPITZER.

GRADUATE DEGREES—Master of Arts and Doctor of Philosophy in economics and in economic history.

MASTER OF ARTS DEGREE

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 19.799 Thesis Seminar-Economics (3-6).

Written Comprehensive Examinations: 3, including one in contemporary economic theory or the history of economic thought; and two others, at least one of which must be in a specialized field of economics or of economic history.

Other Requirements: Thesis.

DOCTOR OF PHILOSOPHY DEGREE

Course Requirements: Minimum of 72 hours of approved graduate work, at least 30 of which must be completed in residence at The American University.

Written Comprehensive Examinations: For the degree in economics—5, including one in the history of economic thought; one in contemporary economic theory; one in economic history; one in a specialized field of economics such as money and banking, labor economics, public finance, international trade, or economic planning; and one in another specialized field of economics or in a related field. For the degree in economic history—5, including one in history of economic thought or contemporary economic theory; three in specialized fields of economic history; and one in a specialized field of economics.

Other Requirements: Proficiency examinations in two research tools (accounting, French, German, statistics, or approved substitutes), dissertation and oral examination on dissertation.

Graduate Courses

ECONOMIC THEORY

- 19.502 **COLLOQUIUM IN NATIONAL ECONOMIC POLICY (3)** An integrating seminar for advanced undergraduate and beginning graduate students. Lectures, discussions and research. Economic aspects of leading problems in public policy. SPRING.
- 19.510 **HISTORY OF ECONOMIC THOUGHT¹: EARLY PERIOD (3)** Social, economic theories from the Greek philosophers to 18th century physiocrats examined in relation to dominant and receding institutions. FALL.
- 19.511 **HISTORY OF ECONOMIC THOUGHT²: MODERN PERIOD (3)** Economic problems and their solutions from the physiocrats and classicists to the marginal utility and general equilibrium schools, including institutional and socialist approaches. SPRING.

ECONOMICS

- 19.512 EQUILIBRIUM ANALYSIS¹: THEORY OF PRICES & PRODUCTION (3)** Advanced analysis of demand curves, supply curves, and the equilibrium of the consumer, the firm, the industry under various market situations. FALL.
- 19.513 EQUILIBRIUM ANALYSIS²: THEORY OF INCOME DISTRIBUTION (3)** Application of general price theory to functional distribution. Demand for, supply of, labor and other productive services. Time preference and liquidity preference. SPRING.
- 19.514 THEORY OF INCOME & EMPLOYMENT (3)** Analysis of economic aggregates; saving, investment, consumption, national income, employment. The multiplier and the acceleration principle. Role of prices, money supply, interest rates. SUMMER. SPRING.
- 19.515 THEORY OF BUSINESS FLUCTUATIONS (3)** Advanced analysis of cycles in general level of business activity. Business cycle theories, Sismondi and Marx to Mitchell and Keynes. Implications for social control, business forecasting, national-international stability. FALL.
- 19.516 THEORY OF ECONOMIC DEVELOPMENT (3)** Development of capitalism and its long-term outlook. Role of business enterprise, technology, population growth, international relations, financial institutions, the relations between capital and labor. SPRING.
- 19.517 ECONOMIC PLANNING: INCOME STABILIZATION (3)** Public, private policies relating to the stabilization of business: compensatory spending, incentive taxation, price and wage determination, inventory policy, monopoly and competition. SPRING.
- 19.518 NATIONAL INCOME & WEALTH: SOCIAL ACCOUNTING (3)** Concepts, sources, methods used in measuring and analyzing national income, income payments, national product, capital formation, consumer expenditures, saving, wealth. FALL.
- 19.519 THEORY OF MONOPOLISTIC COMPETITION (3)** Theoretical problems arising from product differentiations, advertising, salesmanship, restricted entry, other modifications of pure competition. Interrelations among rival firms. Effect of monopolistic elements on cost, income distribution. SPRING.
- 19.610 MATHEMATICAL ECONOMICS (3)** Application of mathematical reasoning to the study of economics, with particular attention to the analysis of microeconomic relations and their logical implications. *Prerequisite, 41.220 Differential and Integral Calculus.* FALL.
- 19.611 CONSTRUCTION OF ECONOMIC MODELS & ECONOMIC ANALYSIS (3)** Models as a tool of economic analysis. Discussion of some current models and their relation to economic projections and policy decisions. FALL.
- 19.613 INSTITUTIONAL ECONOMICS (3)** Methodology, substantive contributions of the institutionalists. Literature of Veblen, Commons, Mitchell, their followers. SPRING.
- 19.614 ECONOMIC PLANNING: PRICES, OUTPUT, INCOME DISTRIBUTION (3)** Welfare implications in the determination of commodity prices, factor prices, allocation of resources. Effects of government planning. FALL.
- 19.616 THEORY OF AGGREGATES (3)** Economics of J. M. Keynes. Theoretical forerunners, modern refinements. Applications to business cycles, theory of economic development, public policy. SPRING.
- 19.618 THE SCHUMPETERIAN SYSTEM (3)** Survey of Schumpeter's social philosophy, methodology, and most influential doctrines. Comparison of his system with other theoretical developments. FALL.
- 19.619 ECONOMICS OF GROWTH (3)** Long-run behavior of national income, population, savings, investment, consumption, technology, business organization in industrially developed countries. SPRING.

MONEY, CREDIT, BANKING

- 19.520 MONETARY & BANKING THEORY (3)** Money and credit as factors influencing income, prices, employment, interest rates. Creation of credit and its control. Velocity of circulation. Liquidity preference. SPRING.
- 19.524 COMMERCIAL BANKING POLICIES (3)** Bank liquidity principles. Short-term lending practices, the term loan; agricultural, consumer, mortgage credit. Structure of interest rates. Bank capital, earnings, supervision. FALL.
- 19.621 THEORY & MANAGEMENT OF CENTRAL BANKING (3)** Functions of central banks. Quantitative, qualitative instruments of central banking policy. Contribution of central banks to economic and monetary stabilization. International responsibilities. SPRING.
- 19.681 INTERNATIONAL FINANCE (3)** Modern theories concerning price levels, balance of trade, capital movements. Exchange restrictions, regulations. The International Bank and International Monetary Fund. FALL.

PUBLIC FINANCE

- 19.529 ECONOMICS OF PUBLIC FINANCE (3)** Principles of budgeting, public spending, debt management, tax policy. Comparative survey of fiscal institutions in the U. S. and abroad. FALL.
- 19.530 FISCAL THEORY (3)** Government financing and fiscal control. Fiscal policies and welfare economics. How to support economic stabilization and full employment by fiscal means. SPRING.
- 19.632 ADVANCED FISCAL THEORY (3)** Discussion of selected problems of fiscal theory. Continuation of 19.530, which is prerequisite to this course. SPRING.

INTERNATIONAL ECONOMICS

- 19.580 **INTERNATIONAL ECONOMIC RELATIONS (3)** National policies related to tariffs, reciprocal trade agreement programs, raw materials, cartels, foreign assistance. *Prerequisite, graduate work in economic theory.* FALL.
- 19.581 **FOREIGN ECONOMIC POLICIES: PROBLEMS CONFRONTING THE U. S. (3)** Formulation, execution of foreign economic policies and programs. International economic and trade position of the U. S. Foreign assistance and underdeveloped areas programs. *Prerequisite, permission of department chairman.* SPRING.
- 19.582 **ECONOMIC PROBLEMS: LATIN AMERICA (3)** Economic geography, population, government organization, public finance, currency, foreign trade, balance of payments, foreign investments, prospects of economic advancement. FALL.
- 19.583 **ECONOMIC PROBLEMS: WESTERN EUROPE (3)** Economic geography, population, government organization, public finance, currency, foreign trade, balance of payments, foreign investments, prospects of economic advancement. SUMMER.
- 19.584 **ECONOMIC PROBLEMS: SOVIET UNION (3)** Economic geography, population, government organization, public finance, currency, foreign trade, balance of payments, foreign investments, prospects of economic advancement. SPRING.
- 19.585 **ECONOMIC PROBLEMS: MIDDLE EAST (3)** Economic geography, population, government organization, public finance, currency, foreign trade, balance of payments, foreign investments, prospects of economic advancement. SPRING.
- 19.586 **ECONOMIC PROBLEMS: ASIA (3)** Economic geography, population, government organization, public finance, currency, foreign trade, balance of payments, foreign investments, prospects of economic advancement. SPRING.
- 19.587 **STRUCTURE & OPERATION OF THE SOVIET ECONOMY (3)** National planning structure and its evolution. Limitations, capabilities, economic potential of the U. S. S. R. FALL.
- 19.588 **COMPARATIVE FOREIGN ECONOMIC POLICIES (3)** Lectures by foreign nationals on the international economic position and policies of principal trading countries. Significance of these policies to the U. S. SPRING.
- 19.589 **ECONOMIC PROBLEMS OF UNDERDEVELOPED COUNTRIES (3)** Trends in living standards, capital formation, industrial-agricultural techniques, monetary structures, income distributions, foreign trade of underdeveloped countries; problems stemming from them. FALL.
- 19.592 **EVOLUTION OF U. S. TARIFF POLICY (3)** Principle issues in the development of United States tariffs from their beginning to the present. The determination and effects of tariff policy. SPRING.
- 19.593 **U. S. TARIFF POLICY: CURRENT PROBLEMS (3)** The trade agreements program. Impacts upon the American economy. Domestic, international aspects. Case studies. SPRING.
- 19.595 **COMPARATIVE ECONOMICS SYSTEMS (3)** Principles governing pricing, income, distribution, productivity, investment, economic stability, growth under capitalism, democratic socialism, totalitarian socialism. *Prerequisite, 19.301.* FALL.
- 19.680 **THEORY OF INTERNATIONAL TRADE (3)** Theories of international trade: gain from trade, income and international balances, exchange rate stability, alternative monetary standards. Basic policy issues. *Prerequisite, 19.580.* SPRING.

GEOGRAPHY

- 25.521 **ECONOMIC GEOGRAPHY ¹: FOOD & AGRICULTURE (3)** World survey of production, distribution, consumption of agricultural commodities. Problems, potentials of major nations and world regions. International trade in agricultural products. FALL.
- 25.522 **ECONOMIC GEOGRAPHY ²: MINERAL RESOURCES & MANUFACTURING (3)** World survey of mineral resources and manufacturing industries. Power resources, raw materials, market areas, transportation, labor, and governmental factors. SPRING.
- 25.523 **GEOGRAPHIC FACTORS IN BUSINESS & INDUSTRY (3)** Applications of geographical techniques to problems in agriculture, mining, manufacturing, marketing, transportation, communications, international trade, regional planning.
- 25.525 **ECONOMIC & POLITICAL GEOGRAPHY OF UNDERDEVELOPED AREAS (3)** Population, territorial framework, resources, industries of areas included under Point Four. Plans, policies, problems projected on geographical setting. FALL.
- 25.530 **WORLD POLITICAL GEOGRAPHY (3)** Major political problems of the world related to geographic backgrounds. World problem areas, current issues, relationships of national states. SPRING.
- 25.531 **GEOGRAPHY OF AMERICAN REGIONS (3)** Resources, population, and industrial agricultural, urban development. Historical sequence of settlement and resource use. Major regional problems, current trends. FALL.
- 25.532 **GEOGRAPHY OF LATIN AMERICA (3)** Man and resources in Latin America studied by individual countries and regions. Population, economic and political life, natural resource base. Historical sequence of land occupancy. SPRING.
- 25.540 **GEOGRAPHY OF WESTERN EUROPE (3)** Population, resources, and economic and political life in Western Europe including the British Isles, Scandinavia, Finland, Benelux, France, Germany, Austria, Italy, Greece, Portugal, and Spain. FALL.

- 25.550 GEOGRAPHY OF THE SOVIET UNION & EASTERN EUROPE (3)** Population, industrial and agricultural production, the resource base. Use of the land as influenced by politics, technology. SUMMER.
- 25.560 GEOGRAPHY OF SOUTHERN & EASTERN ASIA (3)** Population, natural resources, economic and political life in Japan, Korea, China, India, Pakistan, Burma, Thailand, Indo-China, Indonesia, the Philippines. SPRING.
- 25.580 USE & EVALUATION OF MAPS (3)** Map reading and interpretation. Physical, distributional, statistical, communications, economic, land-use, other special-subjects maps. Use of maps in government and business. SPRING.

AGRICULTURAL & INDUSTRIAL POLICIES

- 19.540 ECONOMICS OF AGRICULTURE (3)** Factors influencing farm size, organization, product specialization. Economics of agricultural production, prices, public policy. FALL.
- 19.541 ECONOMICS OF AMERICAN INDUSTRY (3)** Survey of principal manufacturing industries of the U. S. Emphasis on sources of data and on the development of a workable technique of industry analysis. FALL.
- 19.542 CURRENT PROBLEMS OF AMERICAN INDUSTRY (3)** Principal problems facing manufacturing industries in the U. S., such as changing raw material sources, locational and pricing adjustments. Trends in public control. SPRING.
- 19.543 INDUSTRIAL CONCENTRATION & PUBLIC POLICY (3)** Extent and forms of monopoly in the American economy. Objectives, methods, techniques of government control. International comparisons. FALL.
- 19.544 PUBLIC UTILITY ECONOMICS (3)** Introduction to public utility problems. History, operation, finance, rates of public utilities. Government regulation, government operation. FALL.
- 19.640 CURRENT ISSUES OF AGRICULTURAL POLICIES (3)** Agricultural policies in the U. S. and foreign countries. Technical developments, conservation of natural resources, prices, financing, production control. SPRING.

LABOR POLICIES

- 19.550 HISTORY OF THE U. S. LABOR MOVEMENT (3)** Causes, results of organized efforts to regulate the conditions of work and the well-being of workers. Political, economic objectives; social problems raised by the labor movement. SUMMER. FALL.
- 19.551 HISTORY OF THE EUROPEAN LABOR MOVEMENT (3)** Development of the labor movement in Europe. Comparative historical view of trade union ideologies, objectives, structure, methods. International trade union federations. SPRING.
- 19.552 LABOR & THE ECONOMIC ORDER (3)** Trends affecting the position of labor in modern society. Problems of the determination of wages, hours, working conditions, social security. FALL.
- 19.553 CURRENT LABOR PROBLEMS¹: DOMESTIC (3)** Union policies with respect to pensions, insurance, the guaranteed wage, incentive systems, profit sharing, adjustments for living costs and productivity. Non-economic provisions in labor contracts. SPRING.
- 19.554 CURRENT LABOR PROBLEMS²: INTERNATIONAL (3)** Comparative survey of labor problems in a selected group of foreign countries, including France, Italy, Sweden, the United Kingdom. The International Labor Organization and other international bodies. SUMMER.
- 19.555 LABOR & THE LAW (3)** Actions of legislatures, courts, administrative agencies with respect to unions, their activities and responsibilities. Current legal problems of organized labor. FALL.
- 19.556 LABOR-GOVERNMENT RELATIONSHIP (3)** Wagner and Taft-Hartley acts. The National Labor Relations Board, special federal commissions and boards, other agencies affecting wages and working conditions. SUMMER.
- 19.557 COLLECTIVE BARGAINING (3)** Local, regional, national collective bargaining. Theory, procedure, objectives, scope, effects. Relationship to conciliation, mediation, arbitration, fact-finding boards. FALL.
- 19.558 SETTLEMENT OF LABOR DISPUTES (3)** Advanced course in resolving labor disputes, including collective bargaining, grievance negotiations, conciliation, mediation, arbitration, and the like. SPRING.
- 19.559 LABOR ECONOMICS (3)** Labor markets and wage structure. Wage theories and policies. Labor productivity, real wages, income, employment, unemployment. SPRING.
- 19.575 LABOR RELATIONS & THE MILITARY PROGRAM (3)** Labor relations and manpower: military personnel, civil service employees, private industry. Strikes and jurisdictional disputes. Universal military service. Deferment policy. FALL.
- 19.650 THEORY OF WAGES & PROFITS (3)** History of wage and profit doctrines. The marginal productivity theory of wages. Alternative profit theories. Interactions between wages and profits and national income. SUMMER.
- 19.651 STRUCTURE OF THE LABOR MARKET (3)** Application of economic principles to the analysis of labor markets. Case studies and statistical relationships. Effects of unionism. SPRING.
- 19.652 PROTECTIVE LABOR LEGISLATION (3)** Federal, state legislation on wages and hours, legislation affecting the labor supply, regulation of working conditions. FALL.

SEMINARS

- 19.710 SEMINAR IN ECONOMIC THEORY ¹ (3) Advanced analysis of problems in the theory of value and distribution, welfare economics, the theory of economic development. Discussion and supervised research. *Prerequisite, permission of instructor.* FALL.
- 19.711 SEMINAR IN ECONOMIC THEORY ² (3) Advanced analysis of problems in the theory of employment and income, dynamic economics, business fluctuations. Discussion and supervised research. *Prerequisite, permission of instructor.* SPRING.
- 19.780 SEMINAR IN INTERNATIONAL FINANCE (3) Current trends; operation of international financial agencies; recovery programs. *Prerequisite, permission of instructor.* FALL.
- 19.789 SEMINAR IN ECONOMIC DEVELOPMENT (3) Advanced study of the problems of underdeveloped countries. Lectures, discussion and research. Comparative analysis of economic and cultural characteristics related to growth. SPRING.
- 19.799 THESIS SEMINAR IN ECONOMICS (3-6)

Education

Professors: SAMUEL ENGLE BURR, JR. (Chairman); JOHN W. DEVON. *Assistant Professor:* ELOISE NELSON MAGAW. *Adjunct Professor:* ROBERT N. WALKER. *Professorial Lecturers:* WILMER F. BENNETT; B. WILLARD DE SHAZO. *Lecturers:* BERNIECE B. CHAMBERS; WALLACE W. CULVER; HOWARD F. DIDSBURY, JR.; LUCILLE L. LURRY; OLIVE MCKAY; LOUISE S. WALKER.

GRADUATE DEGREES—Master of Arts, Doctor of Education.

MASTER OF ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, which may include up to 6 credit hours in 21.799 Thesis Seminar in Education (3-6).

Written Comprehensive Examinations: Three, chosen from the following fields: Elementary Education, Secondary Education, Adult Education, School Administration, the History and Philosophy of Education, Educational Psychology, Comparative and International Education, Supervision of Instruction, Business and Legal aspects of Education, or a subject matter field. Either one or two of the Comprehensive Examination fields may be Measurement Techniques and/or Counseling Psychology.

Other Requirements: Thesis.

DOCTOR OF EDUCATION

Course Requirements: Minimum of 72 hours of approved graduate work at least 30 of which must be completed in residence at the American University. Program must include course work (not to exceed one-third of course credits) in a subject matter area.

Written Comprehensive Examinations: 5, namely one in either history and philosophy of education or psychology of education, one in an appropriate subject matter field, three to be selected from the following: 1. elementary education; 2. secondary education; 3. school administration; 4. adult education; 5. psychology of education; 6. history and philosophy of education; 7. supervision of instruction; 8. comparative and international education; 9. financial and business aspects of education; 10. another subject matter field. In many cases inclusion of a second subject matter field will be strongly recommended.

Other Requirements: Proficiency examinations in two research tools (French, German, accounting, statistics or approved substitutes), dissertation and oral examination on the dissertation.

PROFESSIONAL CERTIFICATES

Four professional certificates are offered in Elementary Education, Secondary Education, School Administration, and the work of the School Psychologist. The requirements are the satisfactory completion of an approved program of 30 credit hours of selected course work beyond the Masters Degree.

Graduate Courses

- 21.510 CHILDREN'S LITERATURE IN THE ELEMENTARY SCHOOL CURRICULUM (3) Where and how to find suitable stories and related materials for use in each of the elementary grades. Use of stories in the curriculum. The child's appreciation of literature. Not offered 1956-1958.
- 21.511 PHYSICAL EDUCATION, GAMES, HEALTH PROGRAMS IN THE ELEMENTARY SCHOOL CURRICULUM (3) Course designed chiefly for classroom teachers in elementary schools. What the teacher can and should do to supplement the work of the physical education specialists. Not offered 1956-1958.

EDUCATION

- 21.512 NATURAL SCIENCES & MATHEMATICS IN THE ELEMENTARY SCHOOL CURRICULUM (3)** Choice of science and mathematics content for use in elementary schools. Grade placement of content. Objects, materials needed in desirable programs. Not offered 1956-1958.
- 21.513 TEACHING FOREIGN LANGUAGES IN ELEMENTARY & SECONDARY SCHOOLS (3)** Comparison of several theories of language teaching. Desirable content material for language instruction on both levels. How and when to introduce language instruction into the curriculum. Not offered 1956-1958.
- 21.514 TEACHING THE SOCIAL STUDIES IN ELEMENTARY & SECONDARY SCHOOLS (3)** Study of objectives of teaching the social studies and results which should be secured. Special reference to recently renewed emphasis on American history, loyalty to the democratic system of government, the capitalist system. Not offered 1956-1958.
- 21.515 THE CORE CURRICULUM IN ELEMENTARY & JUNIOR HIGH SCHOOLS (3)** Definitions of the core curriculum. Study of the use of core curriculum in various schools. Preparation of the teacher who will teach "core." Relationship to other areas in the curriculum. Not offered 1956-1958.
- 21.516 TEACHING CHILDREN IN SPECIAL CLASSES (3)** Study of the special curricula commonly provided in classes for the mentally retarded, the brain-damaged, the physically handicapped, those presenting behavior problems. Goals which can be set for instruction in such classes. Not offered 1956-1958.
- 21.517 THE SCHOOL & MODERN SOCIAL PROBLEMS (3)** Study and analyses of the social bases of the curriculum. Special reference to pupil needs. Current developments; methods of adapting the school to society. *Prerequisite, permission of the instructor.* 1957 SUMMER AND FALL. 1958 SPRING. 1959 SUMMER.
- 21.520 ADVANCED PSYCHOLOGY OF EDUCATION (3)** Psychological principles, research methods basic to education. Consideration of motivation, attitudes, mental abilities, psychology of school subjects. Required of students taking graduate degree programs in education. *Prerequisite, 57.200 General Psychology or permission of instructor.* FALL. SUMMER.
- 21.527 STUDENT-TEACHER RELATIONS IN THE CLASSROOM (3)** Study of the development of wholesome classroom relationship involving both teacher and pupils. Some phases of the daily work of the teacher in the area of good mental hygiene. 1956 FALL. 1957 SUMMER. 1958 SPRING. 1959 SUMMER.
- 21.530 LIBRARY PROCEDURES FOR TEACHERS (3)** Presentation of what teachers should know about the operation and use of school libraries and public libraries. 1959 SPRING.
- 21.542 CURRICULUM CONSTRUCTION IN ELEMENTARY SCHOOLS (3)** Methods and procedures used in curriculum construction for modern elementary schools. Study of certain selected curricula in use today. 1957 SUMMER. 1958 FALL. 1959 SPRING.
- 21.555 ADULT EDUCATION (3)** Philosophies, methods, techniques, materials, agencies, facilities for developing and administering programs of adult education. *Prerequisite, permission of the instructor.* 1958 FALL. 1959 SPRING.
- 21.557 TEACHER PROBLEMS IN SPEECH (3)** Discussion of speech problems and procedures for the classroom teacher. Elementary speech pathology and speech improvement practices for public school children. 1958 SPRING.
- 21.560 ADMINISTRATIVE PROBLEMS OF THE MODERN SCHOOL (3)** Practical consideration of internal organization of elementary and high schools. Emphasis on ways good teachers and administrators develop working relationships. Basic course for all teachers. *Prerequisite, permission of the instructor.* 1957 FALL. 1958 SUMMER. 1959 SPRING.
- 21.570 ANATOMY & PHYSIOLOGY OF THE VOCAL MECHANISM (3)** In addition to a study of the anatomy and physiology of the vocal mechanism, course includes phonetics and the physics of sound. Fee, all students, \$5. 1956 AND 1958 FALL.
- 21.571 SPEECH PATHOLOGY (3)** Diagnosis of speech defects. Methods of therapy. Includes consideration of stuttering, delayed speech, defective articulation, speech of those with cerebral palsy, speech of those with defective hearing, speech of those with cleft palate. Clinical demonstrations. Fee, all students, \$5. 1957 AND 1959 SPRING.
- 21.572 SPEECH IMPROVEMENT IN THE CLASSROOM (3)** Consideration of the role of the classroom teacher and the school supervisor in bringing about improvement in the speech habits of all children in the classrooms. Special attention to unusual needs that can be met by the teacher. 1957 SUMMER. 1959 FALL.
- 21.565 INSTITUTE ON CURRENT PROBLEMS IN EDUCATION (4-6)** See page 61.
- 21.610 PHILOSOPHY OF EDUCATION: ADVANCED (3)** Study of doctrines and principles underlying public and private education in America. Special consideration to the purposes, processes, methods of elementary and secondary education. SUMMER. SPRING.
- 21.615 COMPARATIVE EDUCATION ¹: THE WESTERN WORLD (3)** Survey and comparison of educational plans and procedures used in various countries. Greatest attention will be directed to education in the United Kingdom, France, Germany, Canada, and the Latin American nations. 1956 FALL AND ALTERNATE YEARS.
- 21.616 COMPARATIVE EDUCATION ²: THE ORIENT (3)** Similar to 21.615, with emphasis upon the educational programs of the far east, rather than the western world. 1957 AND 1959 SPRING.
- 21.640 CURRICULUM CONSTRUCTION IN SECONDARY SCHOOLS (3)** Psychological, cultural, and educational bases of the secondary school curriculum. Practice in construction of curricular materials to meet modern educational problems. 1956 AND 1958 FALL. 1957 AND 1959 SUMMER.

EDUCATION

- 21.642 CURRENT TRENDS & PRACTICES IN ELEMENTARY EDUCATION (3)** A survey of current developments in American elementary schools. 1957 SPRING. 1958 SUMMER. 1959 SPRING.
- 21.650 ESSENTIALS OF SCHOOL LAW (3)** A study of the laws governing education in the United States, with special reference to the District of Columbia, Maryland, and Virginia. 1957 FALL. 1959 SUMMER.
- 21.652 FINANCIAL & BUSINESS ADMINISTRATION FOR SCHOOLS (3)** School budgets, bonds, and taxes. Selecting, buying, and distributing supplies and equipment. Accounting systems for finances and materiel. Other business aspects of education. 1956 SUMMER. 1958 SPRING.
- 21.660 INTERNAL SCHOOL ADMINISTRATION (3)** Organization and administration at the local level. Problems of principal in relation to pupil personnel, teacher personnel, finance, public relations, professional problems. *Prerequisite, permission of instructor.* SUMMER. 1957 FALL AND SPRING.
- 21.670 METHODS & MATERIALS OF EDUCATIONAL RESEARCH (3)** Course designed for graduate students, especially those involved in nonthesis research projects. Use of library facilities, statistical procedures, maps, charts, diagrams, graphic representation. How to present the results of education research. 1956 SUMMER. 1958 FALL. 1959 SPRING.
- 21.740 IMPROVEMENT OF INSTRUCTION IN THE SECONDARY SCHOOL (3)** Survey of literature on supervision of instruction, improved teaching methods, and use of teaching aids. Special projects for teachers of various high school subjects. *Prerequisite, a course in the secondary school curriculum or permission of instructor.* 1956 FALL. 1958 SPRING. 1959 SUMMER.
- 71.799 THESIS SEMINAR IN EDUCATION (3-6)**

English

Professors: MERRITT C. BATCHELDER (Chairman); CHARLES M. CLARK; ALVA L. DAVIS; JOHN G. FRANK. *Associate Professor:* RUDOLPH VON ABELE. *Assistant Professor:* JACK H. YOCUM. *Professorial Lecturer:* LOUISE YOUNG. *Lecturer:* KENNETH CROFT.

GRADUATE DEGREE—Master of Arts.

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 21.799 Thesis Seminar-English (3-6).

Written Comprehensive Examinations: 3, including one in English literary history, American literary history, or the English language; one in a well-defined period of English or American literature with special emphasis on a writer of the period; and one in a phase of English language study, or in a related field of the other humanities or of the social sciences.

Other Requirements: Proficiency examination in one research tool (French or German or an appropriate substitute), thesis or (in certain cases) 6 hours of seminar study in lieu of thesis.

Graduate Courses

- 23.500 **PRINCIPLES OF LINGUISTICS (3)** Linguistic method, modern linguistic theory, problem of language structure, historical and comparative methods, dialect geography. FALL.
- 23.504 **MODERN AMERICAN ENGLISH (3)** Regional and social varieties of American English, with principle interest in dialect geography. SPRING.
- 23.510 **TEACHING OF ENGLISH AS A FOREIGN LANGUAGE (3)** Methods of teaching English as a foreign language, application of modern linguistics research, development of teaching materials, observation of classes in the American Language Center. SUMMER.
- 23.520 **NINETEENTH CENTURY LITERATURE ¹ (3)** Comparative study of literature in the romantic tradition in England and America, poetry and prose. FALL.
- 23.521 **NINETEENTH CENTURY LITERATURE ² (3)** Comparative study of literature in the realist tradition in England and America, poetry and prose. SPRING.
- 23.523 **COMPARATIVE LITERATURE ¹ (3)** Comparative study of the writings of Herder, Rousseau, Schiller, Pushkin, Novalis, Chateaubriand, Tolstoi. FALL.
- 23.524 **COMPARATIVE LITERATURE ² (3)** Comparative study of the writings of Nietzsche, Ibsen, Hauptmann, Thomas Mann, Herman Hesse. SPRING.
- 23.525 **RENAISSANCE LITERATURE (3)** Literature of the Renaissance in Italy, France, England, exclusive of drama, with emphasis upon the literature of the Tudor period in England. SUMMER.
- 23.526 **SEVENTEENTH CENTURY LITERATURE (3)** Stuart, Commonwealth, and Restoration Literature, with some attention to continental Literature of the century, exclusive of drama. SUMMER.
- 23.527 **EIGHTEENTH CENTURY LITERATURE (3)** The literature of eighteenth century England with special reference to the outstanding authors and the dominant literary forms in the neo-classical tradition, exclusive of the drama and the novel. 1956 FALL AND ALTERNATE YEARS.
- 23.532 **SHAKESPEARE ¹ (3)** The earlier plays, with attention to the development of Shakespeare's artistry, his use of sources, the social and political backgrounds. FALL.
- 23.533 **SHAKESPEARE ² (3)** The later plays. SPRING.
- 23.564 **NOVEL IN AMERICA (3)** Development of the novel 1830-1930, as exemplified in works chosen for historical or aesthetic importance. 1957 FALL AND ALTERNATE YEARS.
- 23.565 **POETRY IN AMERICA (3)** Major figures in American poetry, with special attention to the period since 1914. 1958 SPRING AND ALTERNATE YEARS.
- 23.566 **EMERSON AND HIS ERA (3)** A study of the artistic and intellectual currents of the "American Renaissance" as embodied in the writings of Emerson and his circle. FALL.
- 23.575 **AMERICAN DRAMA (3)** The theater of the twentieth century in the United States, with emphasis on the important dramatists and their works; also regional drama and the attempts to achieve a national theater. SUMMER.
- 23.799 **THESIS SEMINAR IN ENGLISH (3-6)**

Geology

Professor: EDGAR BOWLES (Chairman). *Adjunct Professor:* GEORGE SWITZER.
Lecturers: GEORGE FAUST; WILLIAM R. THURSTON.

Graduate Courses

- 27.516 OPTICAL MINERALOGY (4)** Consideration of optical properties of minerals studied under polarized light. Identification of minerals in thin-sections. *Prerequisite:* an undergraduate course in *Mineralogy and Crystallography*. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students, \$10. 1957 FALL AND ALTERNATE YEARS.
- 27.517 PETROLOGY AND PETROGRAPHY (4)** Origin, geologic relationships, identification of typical rocks, with emphasis on those of metamorphic and igneous origin. Identification of rocks in thin-sections. *Prerequisite:* A course in *Optical Mineralogy*. 2 hours of lecture, 4 hours of laboratory. Laboratory fee, parttime students \$10. 1958 SPRING AND ALTERNATE YEARS.
- 27.550 PHYSICS OF THE INTERIOR OF THE EARTH (3)** Introduction to geophysics. Dynamical, astronomical, gravitational, thermal, seismological, magnetic aspects. *Prerequisite, calculus.* FALL 1958 AND EVERY THIRD YEAR THEREAFTER.
- 27.554 ADVANCED STRUCTURAL GEOLOGY ¹ (3)** Consideration of the principles of rock deformation. *Prerequisite:* an undergraduate course in *Structural Geology*. 1956 FALL AND ALTERNATE YEARS.
- 27.555 ADVANCED STRUCTURAL GEOLOGY ² (3)** Consideration of typical tectonic forms typifying various phases of structural activity. *Prerequisite:* 27.554. 1957 SPRING AND ALTERNATE YEARS.
- 27.556 GEOMAGNETISM (2)** Geomagnetic measurements. Phenomenology of main field and secular, diurnal, and disturbance variation fields. Mathematical analysis of main and variation fields. Application of statistical techniques. *Prerequisite: calculus, and at least one year of college physics.* 1959 FALL AND EVERY THIRD YEAR THEREAFTER.
- 27.560 HYDROLOGY (3)** Groundwater infiltration phenomena. Surface waters, runoff, evaporation. *Prerequisite: permission of the instructor.* 1960 SPRING AND EVERY THIRD YEAR THEREAFTER.
- 27.580 MARINE GEOLOGY (3)** Consideration of geological phenomena associated with the marine environment. Sedimentation, submarine topography, physical oceanography. *Prerequisite: permission of the instructor.* 1959 SPRING AND EVERY THIRD YEAR THEREAFTER.
- 27.620 ADVANCED INVERTEBRATE PALEONTOLOGY ¹ (3)** A systematic study of the more primitive phyla of the invertebrate kingdom as illustrated by typical fossils; consideration of the geologic ranges of fossil types. *Prerequisite: an undergraduate course in Invertebrate Paleontology.* 1957 FALL AND ALTERNATE YEARS.
- 27.621 ADVANCED INVERTEBRATE PALEONTOLOGY ² (3)** A systematic study of the more advanced phyla of the invertebrate kingdom as illustrated by typical fossils; consideration of the geologic ranges of fossil types. *Prerequisite: an undergraduate course in Invertebrate Paleontology.* 1958 SPRING AND ALTERNATE YEARS.
- 27.630 STRATIGRAPHY OF PALEOZOIC SEDIMENTS (3)** A comprehensive consideration of the sediments of Paleozoic age, with particular emphasis on those of North America; study of the paleo-geography of the Paleozoic. *Prerequisite: an undergraduate course in Stratigraphy.* 1957 FALL AND ALTERNATE YEARS.
- 27.631 STRATIGRAPHY OF MESOZOIC AND CENOZOIC SEDIMENTS (3)** A comprehensive consideration of the sediments of Mesozoic and Cenozoic age, with particular emphasis on those of North America. *Prerequisite: an undergraduate course in Stratigraphy.* SPRING 1958 AND ALTERNATE YEARS.
- 27.710 SEMINAR IN MINERALOGY (3)** Group discussions of modern progress in Mineralogy and Crystallography; problems involved in the study of minerals. *Prerequisite: permission of the instructor.* 1956 FALL AND ALTERNATE YEARS.
- 27.711 SEMINAR IN PETROLOGY (3)** Group discussions of modern progress in the study of the nature and origin of rocks. *Prerequisite: permission of the instructor.* 1957 SPRING AND ALTERNATE YEARS.
- 27.750 SEMINAR IN STRUCTURAL GEOLOGY (3)** Group discussions of problems in the interpretation of tectonic phenomena; experimentation in the dynamics of rock deformation. *Prerequisite: permission of the instructor.* 1958 SPRING AND ALTERNATE YEARS.

Government and Public Administration

Professors: HAROLD E. DAVIS; CHARLES H. GOODMAN; LOWELL H. HATTERY; ERNST POSNER; CATHERYN SECKLER-HUDSON (Chairman); SAMUEL L. SHARP. *Adjunct Professors:* PAUL CAMP; HELEN L. CHATFIELD; FRANKLIN G. CONNOR; JOSEPH D. COOPER; WILLIAM E. DEWEY; WILLIAM R. DIVINE; HAROLD F. GOSNELL; W. BROOKE GRAVES; HOWARD K. HYDE; CLIFTON E. MACK; ARNOLD MILES; FRITZ MORSTEIN MARX; ELI E. NOBLEMAN; S. MCKEE ROSEN; ROLLAND D. SEVERY; O. GLENN STAHL; JAMES D. TELLER; CARL TILLER; R. R. ZIMMERMAN. *Associate Professors:* WILLIAM E. BIGGS; ROBERT E. GOOSTREE; CHARLES M. HERSH; EDGAR S. ROBINSON; HAROLD H. ROTH. *Assistant Professors:* CHESTER B. EARLE; EMMET V. MITTLEBEELER. *Professorial Lecturers:* HERBERT E. ANGEL; KENNETH P. BORGES; FRANCIS P. BRASSOR; RICHARD G. BROWN; JOHN M. CLARKE; ROBERT COX; MELVIN D. DAVIDOFF; W. PHILLIPS DAVISON; GEORGE H. DEMING; NICHOLAS DE ROCHEFORT; HERBERT DINERSTEIN; ALEXANDER GEORGE; MORRIS GREENE; JOHN C. HONEY; WALTER O. JACOBSON; KERIM KEY; MARTIN KRIESBERG; JAMES L. KUNEN; LYMAN MOORE; E. E. NAYLOR; ALDO L. RAFFA; PHILLIP R. RODGERS; THEODORE R. SCHELLENBERG; RUSSELL A. SNOOK; HANS SPEIER; WARD STEWART; CHARLES A. ULLMANN. *Lecturers:* ROBERT BAUM; CAREY BREWER; RALPH GOLDMAN; THOMAS G. KARIS; JOHN L. MCGRUDER; WILLIAM K. MEDLIN; S. J. POMRENZE; HERBERT H. ROSENBERG; DONALD SPARKS; GEORGE D. THOMAS.

GRADUATE DEGREES—Master of Arts and Doctor of Philosophy in government and in public administration.

MASTER OF ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, 6 hours of which may be in 54.692 Public Administration: Case Study Research (6) or 54.799 Thesis Seminar-Government & Public Administration (3-6).

Written Comprehensive Examinations: For the degree in government—3, including one in the general area of government in the U.S.; one in a specialized aspect of that area; and one in political institutions and theory, comparative government and administration, public administration in the U.S., or a related field. For the degree in public administration—3, including one in national, state, or municipal government or in social psychology; and two selected from the fields of federal budgetary administration, organization and management, public personnel administration, public relations in administration, archives administration, or another approved field.

Other Requirements: Thesis or an approved case study in lieu of thesis.

DOCTOR OF PHILOSOPHY

Course Requirements: Minimum of 72 hours of approved graduate work, at least 30 of which must be completed in residence at The American University.

Written Comprehensive Examinations: For the degree in government—5, including one in the general area of government in the U.S. and one in a specialized field of this area; one in political institutions and theory or comparative governments and comparative administration; one in public administration in the U.S.; and one in a related field. For the degree in Public Administration—5, including one in the area of government in the U.S.; three in fields in the area of public administration; and one in the field of economic or political theory or a related field.

Other Requirements: Proficiency examinations in two research tools (accounting, languages, statistics), dissertation and oral examination on dissertation, and (for the degree in public administration) completion of an approved case study.

Graduate Courses

BASIC COURSES

- 53.500 THE PROCESS OF GOVERNMENT IN THE U. S. (3)** Intensive study of American government in action. Special emphasis on constitutional basis, organization, operation, procedure, political dynamics; current problems. *Prerequisite, graduate standing.* SUMMER. FALL. SPRING.
- 53.501 PRINCIPLES & PROCESSES OF PUBLIC ADMINISTRATION (3)** Basic survey of the processes of public administration: personnel, organization, budgeting, use of administrative powers, public relations. Emphasis on principles, literature, problems, issues, application. *Prerequisite, graduate standing.* Not open to students who have completed 53.400. SUMMER. FALL. SPRING.
- 53.502 EVOLUTION OF PUBLIC ADMINISTRATION (3)** Comparative study of development of administrative processes and institutions. Emphasis on the executive branch; differentiation of functions into departments; growth of the civil service. SPRING.
- 53.504 TECHNOLOGY & ADMINISTRATION (3)** Technological and scientific development in materials, equipment, production, transportation and communication. Significance for planning, personnel, fiscal, other management processes. Analysis of implications of the "electronic age." SPRING.
- 53.505 TECHNOLOGICAL CHANGE & THE SOCIAL ORDER (3)** Consideration of interrelated social change. Role, objectives, methods of major institutions; case studies to illustrate impact of technological development on government; implications for internationalism. SPRING.
- 53.507 RESEARCH METHODS IN GOVERNMENT & PUBLIC AFFAIRS (3)** Description and evaluation of research methods used in the study of government. Concepts, techniques of traditional methods, situational analysis, measurement, research strategy, reporting. SUMMER. FALL. SPRING.
- 53.508 DEVELOPMENT OF FEDERAL ADMINISTRATIVE INSTITUTIONS IN THE U. S. (3)** Origins and growth of federal administrative institutions; administrative problems encountered; impact of personalities; developing concepts and practices of public management. FALL.

POLITICAL THEORY

- 53.520 EARLY POLITICAL THEORY (3)** Analysis of contributions of political thinkers and movements from Plato through the middle ages. Emphasis on the ideological background of western civilization and political science. FALL.
- 53.521 MODERN POLITICAL THEORY (3)** Examination of contributions of political thinkers from Machiavelli to the present. Emphasis on the concept of the state and its relation to culture and society. SUMMER. FALL. SPRING.
- 53.522 WORKSHOP IN CURRENT PROBLEMS OF POLITICAL THOUGHT** Analysis of major and crucial issues facing society today, with emphasis upon the relationship of ideological questions to the practice and events of politics. The method of group inquiry is used in order to forward constructive, critical thinking and jointly-reached conclusions. *Prerequisite, general background in philosophy or theory.* SPRING.
- 53.525 AMERICAN POLITICAL THEORY (3)** Development and significance of political ideas that have influenced the institutional growth of the American system of government, with special emphasis on the 20th century. FALL. SPRING.
- 53.526 ORIENTAL POLITICAL THEORY** Historical survey and analysis of traditional and modern political theory of Asia, with particular attention to China, Japan, India. Emphasis: the Western impact, national movements, current ideological trends. SUMMER.
- 53.620 CONTEMPORARY IDEOLOGICAL ISSUES (3)** Relationship of individual to modern government; ethics of civic behavior; political morality and personal ethics. *Prerequisite, a course in political theory or permission of the instructor.* FALL.
- 54.720 ADVANCED POLITICAL THEORY (3)** For advanced graduate students interested in reading original treatises in the field of political theory, with individual guidance by the instructor. SUMMER. FALL. SPRING.

GOVERNMENTAL PROCESSES

- 53.530 THE LEGISLATIVE PROCESS (3)** Analysis of lawmaking bodies. Emphasis on evolution of their functions, methods, procedures; relationships with Executive Office of the President, administrative agencies, judiciary; problems, trends. SUMMER. FALL.
- 53.531 THE NATIONAL EXECUTIVE (3)** Analytical and historical study of the American Presidency as an institution of government. Formal and informal objectives, authority, powers; organization; operating techniques; public relations. FALL.

GOVERNMENT AND PUBLIC ADMINISTRATION

- 53.532 THE JUDICIAL PROCESS (3)** Nature of the judicial process; organization, jurisdiction of courts; review of civil and criminal procedure; judicial review; selection of judges. Relation to legislative, administrative branches. SPRING.
- 53.533 LEGISLATIVE-ADMINISTRATIVE RELATIONSHIPS (3)** Analysis of relationships between legislative and administrative processes of federal government. Problems involved; limitations and potentialities of cooperative relationships in a democracy. SUMMER. SPRING.
- 53.534 INTERGOVERNMENTAL RELATIONSHIPS (3)** Exploration of the relationships between the several units of government and between headquarters and the field offices. Emphasis on current issues, trends. SUMMER. SPRING.
- 53.535 FORMATION OF PUBLIC POLICY (3)** Workshop for the study of formal and informal influences which condition the development and execution of public policy. Practical illustrations and case work. SUMMER, FALL. SPRING.
- 53.631 DESIGN OF LEGISLATION (3)** Workshop in research and draftsmanship involved in the preparation of bills for introduction into Congress. Detailed study of the theory and mechanics of federal legislation. SPRING.
- 53.632 PROBLEMS OF LEGISLATION & LAW-MAKING (3)** Analysis of problems peculiar to the American law-making process. Relationships with Executive Branch, government agencies, public. Practical applications. SPRING.
- 53.730 SEMINAR IN AMERICAN GOVERNMENT: ADVANCED PROBLEMS (3)** For advanced students interested in special research projects in the field of American government. SPRING.

PUBLIC LAW

- 53.536 GOVERNMENT REGULATION OF BUSINESS (3)** Constitutional basis for regulation of business; methods of regulation of commerce, transportation, monopolies, unfair competition, trade practices, labor relations, security exchanges, agriculture, production, price-fixing. FALL.
- 53.550 ELEMENTS OF JURISPRUDENCE (3)** Principal theories of the nature and force of law; scientific method in law. Relation of the law to other modern social institutions. FALL.
- 53.551 COMPARATIVE LEGAL INSTITUTIONS (3)** Development and growth of legal agencies since primitive times. Interrelations between law and government. Early legal institutions of Europe and their influence on the modern judicial system. SPRING.
- 53.552 ADMINISTRATIVE LAW (3)** General nature of administrative law; types of administrative action and enforcement; analysis of rule-making and adjudication; administrative due process; judicial review. *Prerequisite*, 53.200. SPRING.
- 53.555 CONSTITUTION OF THE U. S.: DEVELOPMENT (3)** Bases of constitutional government, judicial exposition of principles of constitutional government from the Constitutional Convention to the Reconstruction period. Growth of federal systems, powers and limitations. SUMMER. FALL.
- 53.556 CONSTITUTION OF THE U. S.: INTERPRETATIONS (3)** Major trends in constitutional interpretation since the Reconstruction, with emphasis on changing nature of the federal system, relation of public and private interests. SUMMER. SPRING.
- 54.750 SEMINAR IN U. S. PUBLIC LAW (3)** Advanced seminar for graduate students interested in special research projects in the field of U. S. public law. SPRING.

POLITICAL DYNAMICS

- 53.503 THE PUBLIC & ADMINISTRATION (3)** Nature, significance of administration in modern democracy. Pressure groups; interaction between the public and administration; clientele government; responsible executive coordination. Case studies. FALL. SPRING.
- 53.560 PUBLIC OPINION (3)** Concepts of public opinion, propaganda; their formation and role in democratic society; measurement and evaluation of public opinion and propaganda. SUMMER. FALL.
- 53.561 PUBLIC OPINION MEASUREMENT (3)** Methods of measuring public opinion; polling methods; questionnaire construction, sampling, interviewing, analysis of returns; content analysis of mass communications; conducting research on radio and motion pictures. SPRING.
- 53.562 POLITICAL PARTIES & ELECTORAL PROBLEMS (3)** Analysis of party processes in formal government. Party organization; politicians, political leaders; human nature in politics; spoils system; nominating systems, campaign methods; elections; issues, trends. SUMMER. FALL. SPRING.
- 53.563 PRESSURE GROUPS & PROPAGANDA (3)** Methods and techniques of informal control in politics and administration. Group pressure; media of communication; propagandist activity; factors conditioning public opinion; problem areas. SUMMER. SPRING. FALL.
- 53.564 POLITICAL BEHAVIOR (3)** Intensive analysis of human behavior in the political process. Political power, leadership, the role of organization, citizen political activity. Evaluation of recent political behavior research. SUMMER. FALL. SPRING.
- 53.565 PARTICIPATION IN POLITICS (3)** Effective citizen participation in politics with emphasis upon practical techniques. Campaigns in process; from local party organization to elections. Citizen participation in public policy formulation. SPRING.
- 53.566 COMPARATIVE POLITICAL PARTIES (3)** Comparative analysis of the political party systems of Europe and other principal countries. SUMMER. FALL. SPRING.

- 53.567 GOVERNMENTAL REPORTING (3)** Reporting by government to citizens in a democracy. Theory, limitations, media, formal and informal, evaluation; improvement in governmental reporting. Federal, state, local jurisdictions. FALL.
- 53.660 INTERNATIONAL POLITICAL COMMUNICATION (3)** Psychological aspects of foreign policy and role of communication. Problems presented by use of propaganda media of international communication in the service of national policy. FALL.
- 53.661 FIELD STUDY IN PUBLIC OPINION & PRESSURE GROUPS (3)** Supervised field projects in conducting opinion surveys and behavioral studies. FALL.
- 54.740 SEMINAR IN POLITICAL DYNAMICS (3)** Advanced seminar for graduate students interested in special research projects in the field of political dynamics. SPRING.

COMPARATIVE GOVERNMENT AND POLITICS

- 53.570 GOVERNMENT & POLITICS OF WESTERN EUROPE (3)** Comparative analysis of the political systems of Great Britain, France, Switzerland, Scandinavia; evolution and current operation; trends, problems of political reorganization. SUMMER. FALL. SPRING.
- 53.571 GOVERNMENT & POLITICS OF CENTRAL EUROPE (3)** Comparative analysis of the political systems of central Europe. The breakdown of democracy and the rise of dictatorship. Current problems and trends in modern government. SPRING.
- 53.572 GOVERNMENT & POLITICS OF EASTERN EUROPE (3)** History, philosophy of political institutions in Poland, Czechoslovakia, Yugoslavia, Bulgaria, Hungary, Rumania. Theory and practice. Influence of Soviet theory and interests. Trends, prospects. SUMMER. FALL.
- 53.573 GOVERNMENT & POLITICS OF THE SOVIET UNION (3)** Basic theories of communism; evolution of the Soviet system; organization, operation of Soviet Government; relationships with political systems of eastern European satellites. SUMMER. FALL.
- 53.574 GOVERNMENT & POLITICS OF THE FAR EAST (3)** Development, organization, functions of government; ideological growth in China, Japan, Philippines, Thailand, Burma, India, Pakistan. Economic, political, cultural, regional relationships. FALL.
- 53.575 GOVERNMENT & POLITICS OF LATIN AMERICA (3)** Factors influencing political life, constitutions and constitutional issues; federal and unitary states, the presidency, legislatures, judiciary, political parties, electoral systems; budgets; trends in legislation. SUMMER. SPRING.
- 53.576 GOVERNMENT & POLITICS OF THE BRITISH COMMONWEALTH (3)** Constitutional basis of the United Kingdom. Political relationships, trends. SPRING.
- 53.577 PROBLEMS OF GOVERNMENT IN GREAT BRITAIN & FRANCE (3)** British, French experience with representative problems of government. Economic planning and controls; nationalization of industry; social services and the welfare state, political ideology, trends. SPRING.
- 53.578 POLITICAL LEADERSHIP IN LATIN AMERICA (3)** Representative Latin American statesmen and leaders of thought; their historical background as a basis for the analysis of problems of political leadership. SUMMER. SPRING.
- 54.595 GOVERNMENT & POLITICS OF THE MIDDLE EAST (3)** Analysis of political institutions and problems of the Middle East. Countries studied include Afghanistan, Iran, the Arab states, Israel, Turkey. SPRING.
- 54.596 PROBLEMS IN FAR EASTERN GOVERNMENT (3)** Nationalism, representative government, political leadership, party organization, elections, disunity, minorities in Indonesia, Malaya, Vietnam, Ceylon, India, Pakistan, Burma, China, Japan, Korea, the Philippines. SPRING.
- 54.597 GOVERNMENT & POLITICS OF MODERN AFRICA (3)** Intensive study of political problems, institutions, movements, trends in contemporary Africa. FALL.
- 53.679 SEMINAR IN PROBLEMS OF GOVERNMENT IN COMMUNIST COUNTRIES (3)** Selected problems relating to government institutions in the Soviet Union and Soviet "orbit." Techniques of acquisition of power, constitutionalism in revolutionary situations, tensions in Communist-dominated countries. SPRING.
- 54.770 SEMINAR IN COMPARATIVE GOVERNMENT (3)** Advanced seminar for graduate students interested in special research projects in the field of comparative government. SUMMER.

STATE AND LOCAL GOVERNMENT

- 53.580 CURRENT PROBLEMS IN STATE & LOCAL GOVERNMENT (3)** Trends and issues in states and municipalities; problems of coordination in the American federal system. FALL.
- 53.581 COMPARATIVE LOCAL GOVERNMENT & ADMINISTRATION (3)** Comparative study of local governments in Great Britain, France, Italy, Belgium, the Netherlands, Switzerland, countries occupied after World War II. Emphasis on contemporary situation. SPRING.
- 53.585 LOCAL GOVERNMENT PLANNING (3)** Problems involved in developing, executing, planning in urban communities. Composite essentials, obstacles. Tasks of administration. SPRING.
- 53.586 CITY MANAGEMENT IN THE U. S. (3)** Principles, practices of administering governmental functions in urban life. Emphasis on the administrator; modern concepts, methods of administration, current problems; trends. FALL.
- 53.587 MUNICIPAL FINANCIAL ADMINISTRATION (3)** Current developments in administration of fiscal functions in American cities, including budgeting, treasury management, accounting, auditing. Problems, trends. FALL.
- 53.588 GOVERNMENT & ADMINISTRATION OF METROPOLITAN WASHINGTON (3)** Government of metropolitan Washington and its adequacy in meeting social, economic, political problems and issues of the community. Comparative analysis with other metropolitan administrations. FALL.

- 53.589 PROBLEMS OF MUNICIPAL GOVERNMENT (3)** Administrative, organizational, political problems of municipal governments today. Case histories, suggested solutions, current thinking, practice, trends. Variations in cities according to size. SPRING.
- 54.780 SEMINAR IN MUNICIPAL GOVERNMENT & ADMINISTRATION (3)** Advanced seminar for graduate students interested in special research projects in the field of municipal government and administration. SPRING.

POLICE ADMINISTRATION

- 55.500 POLICE INVESTIGATION (3)** Principles, methods, procedures in the investigation of crimes; recognition, evaluation, preservation of evidence; search, observation, surveillance and interrogation. FALL.
- 55.501 ACCIDENT INVESTIGATION (3)** Principles, methods, procedures in the investigation of accidents; recording, use of data. SPRING.
- 55.502 TRAFFIC REGULATION (3)** Organization for traffic regulation; traffic problems and trends; traffic law; traffic surveys; handling special events, other traffic problems; training police for traffic control. FALL.
- 55.503 CRIMINALISTICS (3)** Scientific analysis and identification of evidence; identification of documents; special police techniques; interpretation of medical reports; preparation of reports. FALL.
- 55.504 POLICE LAW & EVIDENCE (3)** Elements of police law; interpretation of the penal code; criminal procedure in the courts; kinds, degrees and rules of evidence; admissibility, competence, weight, presumptions, privileged communications, hearsay, *corpus delicti*. SPRING.
- 55.505 POLICE ADMINISTRATION (3)** Examination and evaluation of structure, principles, processes of criminal enforcement administration in the U. S. Constitutional problems, other approaches. Emphasis on local organization. FALL.

BUDGETARY ADMINISTRATION AND FISCAL POLICY

- 54.510 BUDGETING: AN INSTRUMENT OF PLANNING & MANAGEMENT (3)** Theory and principles of budgeting. Evolution of federal budgetary administration; relationships to fiscal policy and the national economy; problems and current trends. *Prerequisite, a course in administration or experience in budgeting.* SPRING.
- 54.511 FEDERAL BUDGETARY PROCEDURE (3)** Processes and procedures in federal budgetary administration from the operating viewpoint. Preparation, justification of budget estimates; budget execution; techniques of agency budgeting. *Prerequisite, a course in administration or experience in budgeting.* FALL.
- 54.512 FEDERAL FISCAL ISSUES (3)** Budgetary magnitudes in relation to full employment levels of national income problems raised by European aid, national defense, public debt, income and taxation. SPRING.
- 54.513 GOVERNMENTAL SUPPLY MANAGEMENT (3)** Principles, policies, methods applicable to the purchasing of supplies, materials, equipment for use in governmental agencies. Relationship of supply management to administrative management. *Prerequisite, a course in administration or experience in purchasing.* SPRING.
- 54.514 PROBLEMS OF ACCOUNTING IN THE FEDERAL GOVERNMENT (3)** Federal fiscal administration with emphasis on the role of governmental accounting. Progress toward improving accounting systems; major problems; relationship to budgetary management and fiscal policy. *Prerequisite, a course in accounting or experience in the field.* SPRING.
- 54.515 COMPTROLLERSHIP & PUBLIC BUDGETING (3)** Unique problems of government; institutional setting; organization; functions; operational relationships; problems, implementation of comptrollership; trends. SUMMER. FALL.
- 54.516 GOVERNMENT PURCHASING & CONTRACTING (3)** Principles, practices of purchasing and contracting in government. Competitive methods; relationship of specifications and bid evaluation; commodities, sources; contracting methods. Unique problems of government. *Prerequisite, a course in administration or experience in purchasing.* FALL.
- 54.610 PROBLEMS IN PUBLIC BUDGETING (3)** Trends, problems, issues in public budgeting. *Prerequisite, a basic course in budgeting or experience in the field.* SUMMER. FALL. SPRING.
- 54.710 SEMINAR IN BUDGETARY ADMINISTRATION (3)** Advanced seminar for graduate students interested in special research projects in the field of federal budgetary administration. SUMMER. FALL. SPRING.

ORGANIZATION AND MANAGEMENT

- 54.520 PSYCHOLOGY OF MANAGEMENT (3)** Study, application of psychological principles pertinent to modern administrative management. Significance of understanding individual and group behavior, abilities, attitudes. FALL.
- 54.521 HUMAN RELATIONS IN PUBLIC MANAGEMENT (3)** Application of principles of scientific method to human relations in work situations. Examination of recent research in the field; discussion concerning practical application to administrative organizations. FALL.
- 54.522 HUMAN RELATIONS: PROBLEM SOLVING IN PUBLIC MANAGEMENT (3)** Application of the scientific method to specific problems and cases. SPRING.
- 54.523 DEVELOPMENT OF SCIENTIFIC MANAGEMENT (3)** Evolution of scientific management; contributions of Taylor, Gantt, Gilbreth, Emerson, Barth, others. Application in public administration. Philosophy of scientific management; significance and trends. FALL.

- 54.524 COMPARATIVE PUBLIC ADMINISTRATION (3)** Administrative process in Great Britain, France, Italy, Belgium, the Netherlands, Switzerland, and occupied countries of Europe with particular emphasis on recent developments. SUMMER. SPRING.
- 54.525 PLANNING IN GOVERNMENT (3)** Theory, purpose of planning in government at policy and operating levels. Emphasis on program planning; accomplishments, limitations; some comparative study of planning at local government levels. FALL.
- 54.526 OFFICE MANAGEMENT & CONTROL (3)** Principles of management applicable to office situations. Office supervision; correspondence systems; space requirements; allocation; training personnel. SUMMER. FALL. SPRING.
- 54.527 WORK SIMPLIFICATION & WORK MEASUREMENT (3)** Possibilities, limitations of work simplification. Development of standards of measurement; uses of work measurement data; merits, relationship of work simplification and work measurements. SUMMER. FALL.
- 54.528 PRODUCTION PLANNING & CONTROL (3)** Principles of production planning and control in government. Planning flow of paper work, controlling flow of work, quality of work, adjusting for human factors. SUMMER. SPRING.
- 54.529 THE GOVERNMENT & NATIONAL DEFENSE (3)** Role of the military in government. Defense organization and policy formulation; political and economic impact of the "Cold War." Basic theory, problems, trends. SPRING.
- 54.530 ADMINISTRATION OF RESEARCH ACTIVITIES IN GOVERNMENT (3)** Principles and processes of administration as applied to governmental research activities. Consideration of unique problems in research administration. FALL.
- 54.531 MANAGEMENT PROBLEMS OF INTERNATIONAL AGENCIES (3)** Peculiar problems of management in international agencies. Staffing, budgeting, planning, authorizing, operating, directing; public relations; coordination; communication, leadership. Interpersonal relationships. The place factor. SPRING.
- 54.532 PROBLEMS IN GOVERNMENT REORGANIZATION (3)** Principal problems of structural organization of the Executive Branch; review of past and current reorganization studies and proposals; analysis of means for effectuating needed organizational adjustments; evaluation of progress and prospects. *Prerequisite, permission of department chairman.* FALL. SPRING.
- 54.538 PUBLIC HEALTH ADMINISTRATION (3)** Survey, evaluation of governmental organization for health services. Select studies in trends and practice. Historical development, impact of technological factors. SPRING.
- 54.539 CASE PROBLEMS IN PUBLIC ADMINISTRATION (3)** Practical application of principles and concepts of administration to real situation. Workshop in which participants present and help solve everyday problems. FALL. SPRING.
- 54.620 ORGANIZATION & MANAGEMENT: ADVANCED (3)** Systematic study of principles and processes involved in organizing and managing large and complex establishments; evaluating an organization. Issues, trends. Practical application and illustrations. *Prerequisite, graduate standing.* FALL.
- 54.621 PSYCHOLOGY OF MANAGEMENT: ADVANCED (3)** Special case work in the application of psychological principles relating to modern administrative management. *Prerequisite, 54.520.* SPRING.
- 54.622 APPLIED ADMINISTRATIVE MANAGEMENT (3)** Seminar for administrators, operating officials, staff officers. Diagnosis of administrative ills; methods of improving administration; techniques of administrative analysis; international developments. *Prerequisite, permission of department chairman.* FALL.
- 54.624 EXECUTIVE LEADERSHIP IN GOVERNMENT (3)** Qualifications for executive leadership; identification of talent; techniques and their development. Relationship of leadership to policy formation, decision-making, operations. Patterns of organization influencing leadership. SPRING.
- 54.725 SEMINAR IN ORGANIZATION & MANAGEMENT (3)** Advanced seminar for graduate students interested in special research projects in the field of organization and management. SUMMER. SPRING.
- 54.785 SEMINAR IN RESEARCH ADMINISTRATION (3)** Advanced seminar for graduate students interested in application of administrative principles to research situations. Individual projects. SPRING.
- 55.520 AUTOMATIC DATA PROCESSING SYSTEMS (3)** Nature of available equipment; types of management applications; methods of a feasibility survey; staffing costing, programming, systems design and other management considerations. FALL.
- 55.521 PROBLEMS OF AUTOMATIC DATA PROCESSING SYSTEMS (3)** Case problem approach to the study of the most effective design and operation of automatic data processing systems. *Prerequisite: 55.520 or direct experience.* SPRING.

RECORD AND ARCHIVES ADMINISTRATION

- 54.542 HISTORY & ADMINISTRATION OF ARCHIVES: BACKGROUND (3)** History, present state of archival activities in the principal countries of the world, especially those in the U. S.; principles, practices of archives administration. Prospective students should consult with the instructor. FALL.
- 54.543 HISTORY & ADMINISTRATION OF ARCHIVES: PRINCIPLES & TECHNIQUES (3)** Discussion of the most important phases of work with archives and manuscripts. Practical instruction in appraising, arranging records. Field trip to near-by state archival agency. *Prerequisite, 54.542 or permission of instructor.* SPRING.

- 54.545 PLANNING AND ADMINISTRATION OF A RECORDS PROGRAM: CREATION (3)** Principles, methods and techniques of records management in the creation phases. Constructive approach to the problems of correspondence, forms, reports, directives, instructions, and office machines. FALL.
- 54.546 PLANNING AND ADMINISTRATION OF A RECORDS PROGRAM: MAINTENANCE AND RETIREMENT (3)** Problems of mail and telecommunications; files planning, systems, procedures, equipment, supplies, and space; paperwork quality control; scheduling, destructions, and transfer procedures. SPRING.
- 54.640 DOCUMENTATION IN MANAGEMENT (3)** Relation of management to documentation. *Prerequisite, permission of instructor.* FALL.
- 54.641 TREATMENT OF SUBJECT MATTER IN RECORD ADMINISTRATION (3)** Analysis of the subject matter content of an agency's documentation for the purpose of formulating standard definitions and classifications for use in record administration. *Prerequisite, permission of instructor.* SPRING.

PERSONNEL ADMINISTRATION

- 54.550 PERSONNEL PSYCHOLOGY (3)** Techniques of employee selection, placement, evaluation. Aptitude and achievement tests, rating methods, interviewing, motivation and morale; problems of fatigue and efficiency, accidents, personnel rating. *Prerequisite, an introductory course in psychology, background in statistics recommended.* SUMMER. FALL. SPRING.
- 54.552 FORMULATING PERSONNEL POLICIES & PROCEDURES (3)** Fundamentals of a government personnel program. Philosophy, techniques, methods; relation of operating procedures to fundamental policy; procedures of operating officials and procedures in centralized and decentralized personnel organizations. SPRING.
- 54.553 SELECTION & PLACEMENT (3)** Selection processes and techniques, initial placement and internal placement. Emphasis on manpower utilization, inventories of skills, reduction in force. SUMMER. SPRING.
- 54.554 POSITION CLASSIFICATION (3)** Position classification as related to governmental administration as a whole. Relationship to budgeting, planning, organizing, staffing; comparative methods and plans in industry, international agencies, military services. FALL.
- 54.555 TRAINING IN THE PUBLIC SERVICE (3)** Principles, programs, practices in organizing, conducting, evaluating training programs for training and operating officials and those preparing for such responsibilities. SPRING.
- 54.556 EMPLOYER-EMPLOYEE RELATIONS IN GOVERNMENT (3)** Effective relationships between employer and employees. Objectives, methods, techniques; significance, trends. SUMMER. FALL.
- 54.557 COUNSELING IN PUBLIC MANAGEMENT (3)** General principles underlying counseling relationship. Limitations of counseling. Qualifications of counselors. Application to specific problem situations by discussion, demonstration. SPRING.
- 54.558 EMPLOYEE EVALUATION¹: PERFORMANCE STANDARDS & RATINGS (3)** Problems in rating employee performance. Proposed solutions. Developing performance standards. Use in rating employee performance. Planning for employee development based on data from performance ratings. SUMMER. FALL.
- 54.559 EMPLOYEE EVALUATION²: TESTING & MEASURING (3)** Basic concepts and principles of administering, scoring, standardizing, validating, interpreting, using aptitude, performance, attitudes, interests, personal traits tests in employee evaluation programs. SUMMER.
- 54.560 EMPLOYEE EVALUATION³: QUALIFICATIONS ANALYSIS (3)** Scope of qualifications analysis; relation to job analysis and psychology; psychological categories; principles and problems; recording qualifications in job specifications; job specifications in employee evaluation. FALL. SPRING.
- 54.561 EMPLOYEE EVALUATION⁴: INTERVIEWING & PERSONNEL DATA ANALYSIS (3)** Types of interviewing; planning, conducting, interpreting the interview; obtaining personal history data; analyzing personal data; rating education and experience; validation; use in employee evaluation. SPRING. SUMMER.
- 54.562 PROBLEMS IN MILITARY-CIVILIAN MANAGEMENT (3)** Adapting personnel and other management principles to the military-civilian work situation. Techniques for developing mutual understanding, teamwork. SPRING.
- 54.563 GOVERNMENT PERSONNEL PROBLEMS ABROAD (3)** Identification, analysis of special problems of federal personnel administration in foreign countries, territories, possessions. Practices, problems, trends. Special reports by experienced officials. SPRING.
- 53.582 PUBLIC PERSONNEL ADMINISTRATION (3)** Directed reading in public personnel administration. SUMMER.
- 54.663 TRENDS IN PERSONNEL MANAGEMENT (3)** Seminar in current trends and issues in personnel management. Consideration of interrelationships of public and private personnel. Individual projects selected by the student and instructor. *Prerequisite, a course in personnel management or training and experience in professional aspects of the field.* FALL. SPRING.
- 54.664 CURRENT PROBLEMS IN MANPOWER UTILIZATION (3)** Methods in manpower utilization in terms of national manpower supply and demand. Job rebuilding, training, transfer, incentives; group problems, interests; comparisons between industry and government. FALL.
- 54.755 SEMINAR IN EMPLOYEE EVALUATION (3)** Advanced seminar for graduate students interested in special research projects in the field of employee evaluation. SPRING.

GOVERNMENT AND PUBLIC ADMINISTRATION

- 54.760 SEMINAR IN PERSONNEL ADMINISTRATION (3)** Advanced seminar for graduate students interested in special research projects in the field of personnel administration. FALL.

INSTITUTES

- 31.050 INSTITUTE FOR TEACHERS OF GOVERNMENT & ADMINISTRATION (No credit)**
31.051 INSTITUTE ON ADMINISTRATION OF SCIENTIFIC RESEARCH & DEVELOPMENT (No credit)
31.052 INSTITUTE ON ATTITUDE SURVEYS & THE FEDERAL AGENCIES (No credit)
31.053 INSTITUTE ON ELECTRONICS IN MANAGEMENT (No credit)
31.550 INSTITUTE IN THE PRESERVATION & ADMINISTRATION OF ARCHIVES (3) See page 61.
31.551 INSTITUTE ON RECORDS MANAGEMENT (3) See page 61.
31.650 INSTITUTE IN THE PRESERVATION & ADMINISTRATION OF ARCHIVES: ADVANCED (2)
See page 61.

INTERN PROGRAMS

- 54.591 PROBLEMS IN PUBLIC ADMINISTRATION (3)** Seminar for Civil Service Commission Intern Program. Lectures, discussions by authorities and government officials; current issues in public policy and problems in public administration. Advanced reading, written reports. FALL. SPRING.
54.592 PUBLIC ADMINISTRATION INTERN COLLOQUIUM (3) Seminar for the Department of the Navy Interns. Lectures, discussions. Administrative case studies and advanced reading and written reports. FALL. SPRING.
54.593 SEMINAR: PUBLIC ADMINISTRATION INTERNS (6) Problem seminar for Public Administration Interns oriented to work assignments, related areas of administration. FALL. SPRING.
54.691 IN-SERVICE TRAINING PROJECTS (3) Study and research projects undertaken by a limited number of properly qualified persons as an integral part of their degree programs in fields related to their official duties in governmental or private agencies. Supervised jointly by the faculty and officers in the agencies in which the students are employed. *Prerequisite, permission of department chairman and dean of the graduate school.* SUMMER. FALL. SPRING.

RESEARCH AND READING

- 54.070 RESEARCH SEMINAR IN LATIN AMERICAN GOVERNMENTS (No credit)** Postdoctoral seminar for persons interested in research problems in Latin American governments. Inquiry into definition of significant problems for research, methodology, bibliography. FALL.
54.594 PUBLIC AFFAIRS LABORATORY (6) Field study of public affairs. Conferences with leading legislative, administrative, other officials. Problems of policy, management, organization. Reports on field conferences and demonstrations. SUMMER.
54.692 PUBLIC ADMINISTRATION: CASE STUDY RESEARCH (6) Research project in which the principles of public administration are applied to a specific organizational unit. *Prerequisite, candidacy for an advanced degree in public administration.* SUMMER. FALL. SPRING.
54.790 SEMINAR IN APPLIED RESEARCH METHODOLOGY (3) Advanced seminar for graduate students interested in the application of research methods to a particular problem or situation. Individual projects. FALL.
54.799 THESIS SEMINAR IN GOVERNMENT & PUBLIC ADMINISTRATION (3-6)

History

Professors: ERNEST CORRELL; HAROLD E. DAVIS; DONALD DERBY; ARTHUR A. EKIRCH, JR.; ERNST POSNER (Chairman). *Adjunct Professors:* SOLON J. BUCK; LOUIS C. HUNTER. *Associate Professors:* DAVID J. BRANDENBURG; DOROTHY D. GONDOS. *Professorial Lecturers:* MEREDITH B. COLKET, JR.; FRITZ T. EPSTEIN; ARTHUR W. HUMMEL; KERIM K. KEY; STANLEY NEHMER; BOYD C. SHAFER. *Lecturers:* DONALD M. DOZER; JOHN P. HARRISON; WAYNE D. RASMUSSEN.

GRADUATE DEGREES—Master of Arts, Doctor of Philosophy.

MASTER OF ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 29.799 Thesis Seminar-History (§-6).

Written Comprehensive Examinations: 3, including one in the general history of Europe, the U.S., the Far East, or Latin America; one in the history of a particular nation or area, a specialized period of history, or a special phase in the history of a nation, area, period, or aspect of history; and one in a related field of the humanities or social sciences.

Other Requirements: Thesis.

DOCTOR OF PHILOSOPHY

Course Requirements: Minimum of 72 hours of approved graduate work, at least 30 of which must be completed in residence at The American University.

Written Comprehensive Examinations: 5, including two in the general history of two of the following: Europe, the U.S., the Far East, and Latin America; two in the history of particular nations or areas, specialized periods of history, or a special phase in the history of a nation, area, period, or aspect of history; and one in a related field of the humanities or social sciences.

Other Requirements: Proficiency examinations in two tools of research (languages or an approved substitute), dissertation and oral examination on dissertation.

Graduate Courses

HISTORIOGRAPHY & METHODS OF RESEARCH

- 29.500 HISTORICAL RESEARCH: MATERIALS & METHODS (3)** Critical use of materials available for research in modern history. Techniques, methods of inquiry, evaluation of materials, and types and styles of historical writing. 1956 FALL. 1957 SPRING AND ALTERNATE YEARS.
- 29.501 HISTORY OF HISTORICAL WRITING (3)** Development of historiography from the period of the Renaissance. Trends in historical thinking, research, and writing. Discussion of representative historical works. 1957 FALL AND ALTERNATE YEARS.
- 29.503 HISTORICAL WRITING IN THE U.S. (3)** Analysis of historical writing in the U. S. from colonial times. Attention to prominent historians and trends in historical thinking and interpretation. 1958 SPRING AND ALTERNATE YEARS.
- 29.504 PHILOSOPHY OF HISTORY (3)** Contemporary issues in the philosophy of history with special attention to problems of meaning and structure in the historical process, considered in the light of their historical roots. 1956 FALL AND ALTERNATE YEARS.
- 29.509 GENEALOGICAL RESEARCH: MATERIALS & METHODS (3)** Principles and methods of genealogical research and the practical use of genealogical materials in the National Archives and other depositories in or near Washington. FALL.
- 31.530 INSTITUTE OF GENEALOGICAL RESEARCH (3)** See page 61.

EUROPE, ASIA, AFRICA

- 29.510 RENAISSANCE & REFORMATION (3)** Political and social history of Europe from the 15th century to 1648. Transition of Europe from medieval to modern times; impact of explorations and the Reformation. Rise of capitalism. 1958 FALL.
- 29.511 FRENCH REVOLUTION & NAPOLEON (3)** European history from 1789 to 1815. Significant aspects of the French Revolution, the Napoleonic Empire, and the Congress of Vienna. 1958 SPRING.
- 29.512 HISTORY OF EUROPE: 1870 TO 1914 (3)** Political, economic, and cultural effects of nationalism, imperialism, and industrialization in Europe. National developments and international alliances. Background of World War I. 1957 and 1958 SPRING. 1958 FALL.
- 29.513 EUROPE SINCE 1914 (3)** Political, social, and economic developments in Europe from the beginning of World War I through World War II. 1956 AND 1957 FALL. 1957 SPRING AND ALTERNATE YEARS.
- 29.514 MODERN REVOLUTIONS (3)** Theory of revolutionary movements and the form and structure of revolution as exemplified in the Puritan, American, French, and Russian revolutions. 1958 SUMMER.
- 29.515 EXPANSION OF EUROPE (3)** Oversea expansion of European countries from the 15th through the 19th centuries. Influence of colonial and imperialistic expansion in shaping recent history. 1957 SUMMER.
- 29.516 ECONOMIC HISTORY OF MODERN EUROPE¹ (3)** European economy from medieval times through the 18th century. Origins and growth of capitalism. Industrialism, colonialism; public credit and private finance; formation of national economies. FALL.
- 29.517 ECONOMIC HISTORY OF MODERN EUROPE² (3)** Economic aspects of European industrial, national, and colonial development since the 18th century. SPRING.
- 29.519 DIPLOMATIC HISTORY OF EUROPE, 1815-1914 (3)** From the Congress of Vienna to the beginning of World War I. Special attention to emergence and effects of nationalism. 1957 FALL.
- 29.525 FRANCE: EMPIRE TO FOURTH REPUBLIC (3)** Collapse of Second Empire. Formation of the Third Republic and its course to 1940 Vichy interlude and Fourth Republic. Reading knowledge of French desirable. 1956 FALL.
- 29.528 GERMANY SINCE 1870 (3)** Germany History from the Bismarck era to the downfall of the Nazi regime. 1956 AND 1957 FALL.
- 29.530 HISTORY OF CZARIST RUSSIA (3)** Expansion of Russia from the Muscovite principality to the empire of the 20th century. Development of institutions and culture. 1957 FALL.
- 29.531 RUSSIA SINCE 1917 (3)** Soviet Union from the October revolution to the death of Stalin. Emphasis on internal political, socio-economic, and cultural developments. 1956 FALL. 1958 AND 1959 SPRING.
- 29.532 HISTORY OF EAST & CENTRAL EUROPE (3)** East Central Europe (Finland, the Baltic States, Poland, Czechoslovakia, and Hungary) under Russian, Prussian and Austrian domination. The independent States in the Post World War I period. 1958 FALL.
- 29.533 HISTORY OF THE BALKANS & TURKEY (3)** Historical backgrounds. Period of Turkish domination. Rise of nationalism in the Balkans. Great Power diplomacy and the partition of Turkey. Recent developments. 1957 SPRING.
- 29.536 HISTORY OF AFRICA (3)** History of the African continent during the modern period. European colonization and competition; internal economic, social, and political developments; emerging African nationalism. 1958 SUMMER.
- 29.537 HISTORY OF THE MIDDLE EAST (3)** Survey from earliest times to the present. Special emphasis on political, economic, cultural developments in Turkey, Iran, Afghanistan, the Arab States, Israel. 1957 SUMMER.
- 29.538 HISTORY OF CHINA SINCE THE MING DYNASTY (3)** Political and social institutions; schools of thought; legal and moral concepts; literary, artistic and intellectual developments; elements of stability and change; international contacts to recent times. FALL.
- 29.539 HISTORY OF JAPAN: 1600 TO THE PRESENT (3)** Historical background, invasion of Western influence, the restoration of a centralized monarchy, economic and political developments, establishment of an empire, World War II and new Western influence, current problems. SPRING.
- 29.610 INTELLECTUAL HISTORY OF EUROPE THROUGH THE ENLIGHTENMENT (3)** Ideas and outlooks that have influenced the development of western history from the 13th century to the eve of the French Revolution. Not offered 1956-1959.
- 29.611 INTELLECTUAL HISTORY OF EUROPE FROM THE FRENCH REVOLUTION (3)** Cultural and intellectual currents from the end of the 18th century. Rise of the romantic movement; impact of revolutionary ideas, science, and industrial technology. Not offered 1956-1959.

UNITED STATES

- 29.540 COLONIAL ORIGINS OF THE U. S. (3)** European backgrounds. Conflict of rival colonial systems. Political, economic, and social developments within the colonies. Causes and development of revolt. 1958 SUMMER.
- 29.541 ERA OF THE AMERICAN REVOLUTION (3)** Survey of colonial backgrounds. Origins and development of the American Revolution. Drafting and establishment of the Constitution of the U. S. FALL.

HISTORY

- 29.542 DEVELOPMENT & DISRUPTION OF THE FEDERAL UNION (3)** The U. S. from 1789 to 1861. Social and political implications of the Jeffersonian and the Jacksonian reform movements of the period. Growth of sectionalism. 1958 FALL. 1957 AND 1959 SPRING.
- 29.543 CIVIL WAR & RECONSTRUCTION (3)** Causes and course of the war; its impact on national life. Problems and effects of reconstruction. Industrialization and urbanization. Social and economic forces. 1957 FALL.
- 29.544 THE U. S. IN THE 20th CENTURY (3)** Era of Theodore Roosevelt. Emergence of the U. S. as a world power. The New Deal. The U. S. in two world wars. 1958 SPRING.
- 29.545 THE SOUTH IN U. S. HISTORY (3)** Colonial times to the present. Factors making the south a distinctive part of the American nation. Not offered 1956-1959.
- 29.546 THE FRONTIER IN U. S. HISTORY (3)** Westward expansion from colonial times to the close of the 19th century. Analysis of Turner's frontier hypothesis in the light of recent critical literature. 1957 SUMMER.
- 29.547 HISTORY OF U. S. FOREIGN POLICY (3)** Historical treatment and critical examination of the role of the U. S. in world affairs. 1957 SPRING. 1958 FALL.
- 29.548 AMERICAN ECONOMIC HISTORY ¹ (3)** Review of American economic development from the colonial beginnings to the mid-19th century. FALL.
- 29.549 AMERICAN ECONOMIC HISTORY ² (3)** Review of American economic development during the past one hundred years. SPRING.
- 29.550 HISTORY OF INDUSTRY IN THE U. S. (3)** American industrial development from the end of the 18th century to the present. Structural and organizational aspects, location trends, technology, and distribution. 1958 SUMMER AND ALTERNATE YEARS.
- 29.551 HISTORY OF AGRICULTURE IN THE U. S. (3)** Agrarian settlement and land policies, history and significance of farm implements and machinery; agricultural development by regions and commodities. 1957 SUMMER AND ALTERNATE YEARS.
- 29.553 HISTORY OF AMERICAN BUSINESS LEADERSHIP (3)** The business heritage: studies in American business history for students with strong background in Business Administration, Economics or American History. FALL. SPRING. 1958 SUMMER.
- 29.640 INTELLECTUAL HISTORY OF THE U. S.¹ (3)** Ideas and attitudes of the American people and their leaders from colonial times to the Civil War. Puritanism, the enlightenment, transcendentalism, democracy, and nationalism. FALL.
- 29.641 INTELLECTUAL HISTORY OF THE U. S.² (3)** Dominant patterns of American thought from the Civil War to the present. Impact of Darwinian evolution, industrialism, the vanishing frontier, progressive democracy, imperialism, and war. SPRING.
- 29.642 CONCEPT OF AMERICAN NATIONALISM (3)** Origin and development of nationalism with attention to manifest destiny, cultural nationalism, patriotism, and world-mindedness. 1957 SUMMER AND ALTERNATE YEARS.
- 29.643 U. S. EXPANSION ABROAD (3)** Political and economic expansion of the U. S. in key areas such as Latin America and the Pacific. Ideological impact of American civilization in all parts of the world. 1958 SUMMER AND ALTERNATE YEARS.

THE OTHER AMERICAS

- 29.570 COLONIAL ORIGINS OF LATIN AMERICAN NATIONS (3)** Colonization by Spain, Portugal, and France. Causes and developments of independence movements. 1959 SPRING.
- 29.571 GROWTH OF LATIN AMERICAN NATIONALISM (3)** History of Latin America from independence to the end of the 19th century. Constitutional, sociological, economic, and ideological aspects of national development. 1957 FALL.
- 29.572 LATIN AMERICA IN THE 20th CENTURY (3)** Movements of economic nationalism. Agrarian, electoral, and educational reform. Militarism: cultural, ideological, and religious developments. 1957 SPRING. 1958 FALL.
- 29.573 LATIN AMERICAN SOCIAL & POLITICAL THOUGHT (3)** Spanish and Portuguese backgrounds. Ideas of the independence leaders. Mid-century liberalism and romanticism. Positivist thought. Contemporary trends. 1956 FALL. 1957 SPRING.
- 29.574 HISTORY OF CANADA (3)** National development from colonial origins to the achievement of dominion status. Westward expansion. Relations with the U. S., the Commonwealth of Nations, and the United Nations. Not offered 1956-1959.

SEMINARS

- 29.710 RESEARCH SEMINAR IN EUROPEAN HISTORY (3)** 1957 SPRING. 1958 FALL.
- 29.740 RESEARCH SEMINAR IN THE HISTORY OF THE U. S. (3)** 1957 FALL.
- 29.799 THESIS SEMINAR IN HISTORY (3-6)**

Institutes

The University offers each year short, intensive institutes primarily for students already established in their professions who desire to increase their knowledge of the theories and techniques of their specialties. Institute programs are developed in consultation with specialists in business organizations, government agencies, and national associations located in Washington and consist of formal lectures and seminar discussions, field and laboratory work, reading assignments, and research projects. Institutes are offered as credit and non-credit courses. A limited amount of credit earned by the completion of the institutes listed below may be used to meet the requirements for graduate degrees. Attention is also called to the University's non-credit institutes in business and public administration that are offered throughout the year and announced in the regular semester bulletins. For information concerning these institutes apply to the dean of the School of Social Sciences and Public Affairs, 1901 F Street, N.W., Washington 6, D. C.

- 31.505 INSTITUTE ON REAL ESTATE APPRAISAL ² (3)** Official advanced demonstration case-study course of American Institute of Real Estate Appraisers. Students appraise two properties, prepare written reports. Credit applicable toward membership in Institute of Real Estate Appraisers as well as toward University degrees. *Prerequisite*, 11,589 *Real Estate Appraisal*, five years of real estate experience, or satisfactory completion of special Institute of Real Estate Appraisers examination. Institute meets 11 days (80 hours). 1957 AND 1959 SUMMER.
- 31.506 INSTITUTE OF C.P.A. EXAMINATION REVIEW (6)** Refresher course for November C.P.A. examination candidates. Review of examination subjects, practice in solution of previous examination problems. Meets during the summer and into the fall (75 hours). SUMMER.
- 31.515 RECENT ADVANCES IN CHEMISTRY & PHYSICS: SUMMER INSTITUTE FOR SECONDARY SCHOOL TEACHERS (6)** Newer developments, their applicability to the teaching of chemistry and physics in secondary schools. Lectures, seminar meetings, laboratory work in the morning; supervised internships in laboratories of scientific organizations in the Washington area in the afternoon. 30 stipends and dependency allowances available from grant of the National Science Foundation to students chosen by selection committee. Meets six weeks, total of 210 hours.
- 31.530 INSTITUTE OF GENEALOGICAL RESEARCH (3)** Principles and methods of genealogical research and the practical use of genealogical materials in the National Archives and other depositories in or near Washington. Institute meets 15 days (75 hours). SUMMER.
- 31.540 INSTITUTE ON THE POSITION OF THE U. S. IN WORLD AFFAIRS (4-6)** Institute for teachers and other students designed to show the formation and implementation of current U. S. foreign policy. Seminars and meetings with government and diplomatic officials. Institute meets five weeks in Washington, the last week at the headquarters of the United Nations, a total of 6 weeks. SUMMER.
- 31.550 INSTITUTE IN THE PRESERVATION & ADMINISTRATION OF ARCHIVES (3)** Lectures on phases of archives administration and laboratory experience in the National Archives, the Library of Congress, and the Maryland Hall of Records. Institute meets 20 days (105 hours). SUMMER.
- 31.551 INSTITUTE ON RECORDS MANAGEMENT (2)** Offered in cooperation with the National Archives and Record Service. Emphasizes constructive approach aimed at the effective and economical creation, maintenance, retention of records of maximum use to the organization concerned. Lectures and workshop sessions. Institute meets two weeks (60 hours). SUMMER.
- 31.561 INSTITUTE OF HUMAN RELATIONS & INTERGROUP UNDERSTANDING (3)** Seminar meetings dealing with the psychological and social problems of discrimination, prejudice, and race antagonisms on both the local and world levels. Nationally recognized consultants discuss methods of improving race relations. Institute meets 15 days (67 hours). SUMMER.
- 31.565 INSTITUTE ON CURRENT PROBLEMS IN EDUCATION (4-6)** Comprehensive survey of current problems in the American educational scene including matters in the areas of administration, supervision, teaching methods, curriculum construction, and the use of audio-visual aids. Institute meets six weeks (90 hours). Summer.
- 31.650 INSTITUTE IN THE PRESERVATION AND ADMINISTRATION OF ARCHIVES: ADVANCED (2)** Offered in cooperation with the National Archives and Records Service and the Maryland Hall of Records. Lectures on selected topics of the field for students with considerable background and experience in the field. Institute meets two weeks (60 hours). Not offered 1956-1959.

International Relations and Organization

Professors: PITMAN B. POTTER (Chairman); SAMUEL L. SHARP. *Adjunct Professor:* ELI E. NOBLEMAN. *Associate Professor:* MARY E. BRADSHAW. *Professorial Lecturers:* LAWRENCE D. EGBERT; N. G. D. JOARDER; KERIM K. KEY. *Lecturers:* DONALD M. DOZER; E. TAYLOR PARKS; LAWRENCE W. WADSWORTH, JR.

GRADUATE DEGREES—Master of Arts, Doctor of Philosophy.

MASTER OF ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 33.799 Thesis Seminar-International Relations and Organization (3-6).

Written Comprehensive Examinations: 3, including one in international organization; one in American diplomacy, international administration, Inter-American system, international law, international relations of a specified area, or the United Nations; and one in a related field.

Other Requirements: Thesis.

DOCTOR OF PHILOSOPHY

Course Requirements: Minimum of 72 hours of approved graduate work, at least 30 of which must be completed in residence at The American University.

Written Comprehensive Examinations: 5, including one in international organization; three selected from the following fields: international law, American diplomacy, international administration, Inter-American system, international relations of a specific area, and the United Nations; and one in a related field.

Graduate Courses

Other Requirements: Proficiency examinations in two tools of research (languages or an approved substitute), thesis and oral examination on thesis.

- 33.510 **AMERICAN DIPLOMACY (3)** Department of State; Foreign Service; principles of constitutional law and practices governing the President, the Department, Congress, etc. Principles of American foreign policy and recent developments. FALL.
- 33.512 **PROBLEMS IN AMERICAN DIPLOMACY (3)** Post-war difficulties, settlements, programs. Economic development and regional defense systems. Discussion of current trends in American foreign relations. SPRING.
- 33.513 **U. S.-CANADIAN RELATIONS (3)** Development of U. S.-Canadian relations. International organizations operating between the two countries. Current problems. 1957 SPRING AND ALTERNATE YEARS.
- 33.516 **INTERNATIONAL RELATIONS BETWEEN WARS (3)** Diplomacy of 1919-1939 with particular reference to Europe. Development and breakdown of the French system; collective security, Fascism and Nazism, the Soviet Union, the role of the U. S. in European affairs. FALL.
- 33.517 **DIPLOMACY OF WORLD WAR II (3)** Principal diplomatic activities of the states chiefly concerned in the outbreak, conduct, conclusion of World War II. SUMMER.
- 33.519 **SOVIET RUSSIA IN THE FAR EAST (3)** Historical analysis of Soviet foreign policy and Moscow-directed revolutionary activity in the Pacific Area of Asia since the Bolshevik seizure of power in Russia.
- 33.520 **CENTRAL & WESTERN EUROPE INTERNATIONAL RELATIONS (3)** Principal problems in the foreign relations of the nations of Central and Western Europe, including Great Britain but excluding the Scandinavian countries. Basic geographical, economic, and social factors. SPRING.
- 33.521 **RUSSIAN EXPANSION: CZARIST & SOVIET (3)** Main trends of Russian territorial and political expansion in Europe and Asia since the 17th century. Ideological tools of expansion, including Orthodoxy, Pan-Slavism, and International Communism. Not offered 1956-1957.
- 33.522 **SOVIET RUSSIA IN WORLD AFFAIRS (3)** Development of Russia's international position under the Soviet system; analysis of the aims and methods of Soviet diplomacy with particular emphasis on the record since the end of World War II. Not offered 1956-1957.

- 33.523 PROBLEMS OF THE MIDDLE ZONE: FINLAND TO GREECE (3)** Internal and external problems of countries lying between Germany and Russia in their historical and contemporary setting. Past and current plans for federal union in this area. FALL.
- 33.524 CONTEMPORARY AFRICAN PROBLEMS (3)** Independent nations in Africa and their international relations. Dependent territories and their relations to metropolitan countries and the United Nations. Future place of Africa in world politics. SPRING.
- 33.525 MIDDLE EAST INTERNATIONAL RELATIONS (3)** Political, economic, and social backgrounds and foreign relations of the countries of the middle east, with special emphasis on constitutional, economic, and cultural developments of Afghanistan, Iran, the Arab states, Israel and Turkey. SUMMER.
- 33.526 INDIA IN WORLD POLITICS (3)** Indian national independence movement; Gandhian non-violence. Dominion status and its consequences; republican constitution; political parties. Indian foreign policy; relations with other countries and the United Nations. FALL.
- 33.527 SOUTHEAST ASIA INTERNATIONAL RELATIONS (3)** Geopolitical position of southeast Asia; social and economic forces, natural resources, economic demography, agricultural and industrial planning, trade relations. Political forces; colonialism, nationalism, communism; trends in foreign relations and foreign policy; U. S. policy toward southeast Asia. SPRING.
- 33.528 FAR EAST INTERNATIONAL RELATIONS (3)** Geographic setting; penetration by western powers; colonialism and imperialism; interests and policies of the great powers; rise of nationalism; effect of two world wars; influence of the League of Nations and the United Nations; regionalism in the orient. FALL.
- 33.529 INTER-AMERICAN INTERNATIONAL RELATIONS (3)** A survey of the historical background and recent development of U. S. relations with Latin America and of diplomatic relations among the Latin American states. 1957 FALL AND ALTERNATE YEARS.
- 33.530 INTERNATIONAL ASSISTANCE PROGRAMS FOR BACKWARD AREAS (3)** Objectives and organizational and operational techniques; bilateral and multilateral United Nations and U. S. assistance programs. Reconstruction, financial aid, technical assistance, and social welfare. Specific operations in foreign areas. *Prerequisite, introductory courses in international organization and economics.* FALL.
- 33.531 SOVIET RUSSIA IN THE NEAR & MIDDLE EAST (3)** Analysis of Soviet foreign policy and Moscow-directed revolutionary activity in the Afro-Asian area since 1917. FALL.
- 31.540 INSTITUTE ON THE POSITION OF THE U. S. IN WORLD AFFAIRS (4-6)** See page 61.
- 33.550 INTERNATIONAL ORGANIZATION & ADMINISTRATION (3)** Nature, bases, and functions of international organization. Diplomacy, treaties, international conferences and legislation, international administration and adjudication; international federation; world government. League of Nations and United Nations. FALL. SPRING.
- 33.551 UNITED NATIONS ORGANIZATION & FUNCTIONS (3)** The Charter. Origins, functions, operation of the principal organs with emphasis upon General Assembly and Security Council. Admission of members, obligations of membership. FALL AND SPRING.
- 33.552 UNITED NATIONS ECONOMIC & SOCIAL OPERATIONS (3)** Study of ECOSOC and the specialized agencies. Trusteeship system and the principle of trusteeship. SPRING.
- 33.554 THE INTER-AMERICAN SYSTEM (3)** Organization and operation of the Organization of American States and affiliated organizations. Inter-American peace and security system. Relationship of the system to the United Nations. 1958 FALL AND ALTERNATE YEARS.
- 33.555 THE U. S. & INTERNATIONAL ORGANIZATION (3)** U. S. participation in international organizations; relation to foreign policy. Administrative and fiscal aspects; benefits derived; government organization to meet responsibilities; role of Congress, State Department, other agencies. FALL. SPRING.
- 33.556 INTERNATIONAL ADMINISTRATION (3)** Nature of international administration. Historical development. Membership and organization of international administrative unions. Functions, procedures, finances, personnel, seat, and plant. Relations of agencies with member governments, non-member states and organizations, and the public. SUMMER.
- 33.560 INTERNATIONAL LAW & LEGISLATION ¹ (3)** Nature, origins and history of international law. Forms and formation of the law (parties of international law; sovereignty and jurisdiction; international intercourse). FALL.
- 33.561 INTERNATIONAL LAW & LEGISLATION ² (3)** Force short of war. War and its commencement. Combatants and non-combatants. Permitted and prohibited methods. Occupation of enemy territory. Enemy aliens. Enemy property. Termination of war. Prisoners of war. War crimes. Neutral rights and duties. Prize law. SPRING.
- 33.562 LAW OF INTERNATIONAL FINANCE (3)** Major principles of international law related to international trade and finance. Impact of recent legal concepts on traditional thought and practice. Bipartite and multipartite agreements; statutes; cases. Organizational developments including IMF, IBRD, and others. *Prerequisite, 33.550 or its equivalent.* Not offered 1956-1957.
- 33.563 INTERNATIONAL LAW THEORY & HISTORY (3)** Nature and function of international law; defects and needs of revision; relation to international organization; future. SUMMER.
- 33.564 INTERNATIONAL REGULATION OF AVIATION (3)** Historical evolution of aviation. Analysis of regulatory problems. International integration of regulation. Present statutes. Prospects for more effective consolidation. Not offered 1956-1957.
- 33.568 INTERNATIONAL MARITIME LAW (3)** Origins and development of maritime law. Jurisdiction over parts of the sea. Regulation of navigation, shipping, and admiralty and maritime jurisdiction. Principles of the law applicable to the construction, ownership, operation, documentation, and liability of ships. Not offered 1956-1957.

INTERNATIONAL RELATIONS AND ORGANIZATION

- 33.630 SEMINAR ON FORMULATION & ADMINISTRATION OF U. S. FOREIGN POLICY (3)** Analysis of forces and factors that condition development of American foreign policy. Emphasis upon structure, processes, coordination, administration rather than on the substance of foreign policy. FALL.
- 33.675 SEMINAR ON THE UNITED NATIONS (3)** Selected problems on the United Nations and specialized agencies. FALL.
- 33.700 SEMINAR IN CONTEMPORARY INTERNATIONAL RELATIONS (3)** Individual projects, group discussion of special problems; emphasis on impact of the polarization of power on traditional ideas and techniques in foreign policy. FALL. SPRING.
- 33.720 LATIN AMERICAN AREA SEMINAR (3)** General studies and directed research on the peoples, institutions, economic problems, and historical backgrounds of the various areas and countries of Latin America. SPRING.
- 33.750 SEMINAR IN INTERNATIONAL RELATIONS & ORGANIZATION (3)** Selected problems in international political relations and international organization exclusive of law and administration. SPRING.
- 33.770 SEMINAR IN INTERNATIONAL LAW & ADMINISTRATION (3)** Selected problems in international law including international, constitutional, administrative, and criminal law and international legislation. Problems in international administration. FALL.
- 33.799 THESIS SEMINAR IN INTERNATIONAL RELATIONS & ORGANIZATION (3-6)**

Mathematics

Professors: FRITZ OBERHETTINGER; WALTER F. SHENTON (Chairman); PAUL N. SOMERVILLE (Visiting). **Adjunct Professors:** HENRY A. ANTOSIEWICZ; EUGENE LUKACS; ERNEST E. BLANCHE. **Assistant Professors:** PETER HENRICI; URS HOCHSTRASSER. **Professorial Lecturers:** FRANZ ALT; WALTER JACOBS; OLGA TAUSKY-TODD; JOHN TODD. **Lecturers:** MILTON ABRAMOWITZ; HOWARD CAMPAIGNE; EDWARD W. CANNON; PHILIP DAVIS; ROBERT D. ELBOURN; ALAN HOFFMAN; JOSEPH MCCLOSKEY; DON MITTMELMAN; MORRIS NEWMAN; PHILIP RABINOWITZ; JOSEPH WEGSTEIN.

GRADUATE DEGREES—Master of Arts, Doctor of Philosophy.

MASTER OF ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 41.799 Thesis Seminar-Mathematics (3-6).

Written Comprehensive Examinations: 3, including one in the field of algebra, logic, and number theory; one in the field of analysis; and one in another field of mathematics.

Other Requirements: Thesis.

DOCTOR OF PHILOSOPHY

Course Requirements: Minimum of 72 hours of approved graduate work, 30 of which must be completed in residence at The American University.

Written Comprehensive Examinations: 5, including one in modern algebra or matrix theory; one in functions of real and complex variables; one in the field of the candidate's thesis; and two others in approved fields of mathematics.

Other Requirements: Proficiency examination in two tools of research (ordinarily French and German); dissertation and oral examination on dissertation.

Graduate Courses

- 41.500 FUNDAMENTAL CONCEPTS OF MATHEMATICS (2)** Real number system developed from Peano's axiom for natural numbers and successive extensions through the integers and rational numbers. Concepts of isomorphism, group, ring, field, order, various topological and set-theoretic notions. *Prerequisite*, 41.521. 1957 FALL.
- 41.510 MATRIX THEORY¹ (2)** Finite dimensional vector spaces. Linear transformations. Matrices. *Prerequisite*, 41.310. 1957 FALL.
- 41.511 MATRIX THEORY² (2)** Rank. Period. Determinants. Linear equations. Characteristic values. Quadratic forms. *Prerequisite*, 41.511. 1958 SPRING.
- 41.512 MODERN ALGEBRA¹ (2)** Semigroups and groups; invariant subgroups; factor groups; homomorphisms; rings; integral domains, fields; polynomial rings; principal ideal domains; groups with operators; modulus, ideals; lattices, Boolean algebra. *Prerequisite*, 41.310. 1956 FALL.
- 41.513 MODERN ALGEBRA² (2)** Linear spaces; matrices and canonical forms; continuous groups; rings and ideals; line or associative algebras. *Prerequisite*, 41.512. 1957 SPRING.
- 41.515 NUMBER THEORY (2)** Divisibility, prime numbers, number-theoretic functions, residue classes and congruence of numbers, quadratic residues, diophantine equations, the theory of quadratic forms, etc. 1958 SPRING.
- 41.520 INTRODUCTION TO ANALYSIS¹ (3)** Differential calculus; the real numbers, limits, functions, continuity, differentials, differentiation, mean value theorem, higher order derivatives. Taylor's theorem, infinite series, uniform convergence, partial derivatives, implicit functions. *Prerequisite*, 41.320. FALL.
- 41.521 INTRODUCTION TO ANALYSIS² (3)** Integral calculus: Stieltjes and Riemann integrals; iterated and multiple integrals; line, surface, space integrals; improper integrals. *Prerequisite*, 41.520. SPRING.
- 41.523 ORDINARY DIFFERENTIAL EQUATIONS (2)** Linear differential equations with constant coefficients. Existence theorems; linear differential equations of the second order with variable coefficients. Boundary-value problems. Applications. *Prerequisite*, 41.321. 1957 FALL.
- 41.524 PARTIAL DIFFERENTIAL EQUATIONS (2)** Linear partial differential equations of the first order. Characteristics. Complete integral. Partial differential equations of the second order. Hyperbolic equations. Riemann's method. Elliptic equations. Green's function. Poisson integral. Parabolic equations. *Prerequisite*, 41.523. 1958 SPRING.

- 41.525 **SPECIAL FUNCTIONS (2)** Fundamental properties of Gamma and Bessel functions; Legendre, Hermite, Laguerre, and Chebyshev polynomials. Differential equations, asymptotic expansion, determination of zeros. *Prerequisite*, 41.521. 1958 SPRING.
- 41.528 **VECTOR ANALYSIS (2)** Algebra and calculus of vectors. Theorems of Green, Gauss, Stokes. Applications to space and differential geometry, geometric optics, gravitational potential, mechanics, hydrodynamics, elasticity, electromagnetism. *Prerequisite*, 41.221. 1958 FALL.
- 41.540 **PROJECTIVE GEOMETRY (2)** Projective geometry and its relation to the foundations of Euclidean and non-Euclidean geometry. *Prerequisite*, 41.140. 1956 FALL.
- 41.542 **ALGEBRAIC GEOMETRY (2)** Properties of algebraic correspondences used to develop the projective theory of conics, cubic curves, quadric surfaces, associated loci. *Prerequisite, consent of the instructor*. 1958 SPRING.
- 41.560 **NUMERICAL ANALYSIS¹: BASIC PROBLEMS (2)** Interpolation; finite differences; numerical differentiation, integration and approximations by orthogonal functions; least squares; asymptotic representations; difference equations; continued fractions; planning and use of tables; optimum interval tables; differencing. *Prerequisite*, 41.320. 1957 FALL.
- 41.561 **NUMERICAL ANALYSIS¹: MATRICES (2)** Calculation of inverses of matrices by various methods; iterative processes for solving systems of simultaneous linear equations, and determination of eigenvalues and eigenvectors of a matrix. *Prerequisite*, 41.510. 1958 SPRING.
- 41.562 **NUMERICAL ANALYSIS²: ORDINARY DIFFERENTIAL EQUATIONS (2)** Numerical solution of ordinary differential equations of initial value and boundary value types. Introduction to numerical solution of partial differential equations. *Prerequisite, permission of instructor*. 1956 FALL.
- 41.563 **NUMERICAL ANALYSIS⁴: PARTIAL DIFFERENTIAL EQUATIONS (2)** Sturm-Liouville problems: expansion, theorem, maximum-minimum properties, including theorems, asymptotic behavior. Numerical methods: iteration methods, Rayleigh-Ritz method, remarks on difference methods. *Prerequisite*, 41.568. 1957 SPRING.
- 41.565 **CALCULUS OF FINITE DIFFERENCES (3)** Differences, interpolation, expansion of functions, especially in factorial form. Summation, generating functions, and difference equations. Numerical integration, graduation, and other approximations. *Prerequisite*, 41.221. 1957 FALL.
- 41.566 **ADVANCED DESIGN & USE OF MODERN COMPUTING MACHINERY¹ (2)** Electronic computer systems and components: arithmetic unit, internal memory, control, input-output devices. Electronic design of storage and gating units. Number representations and number codes. Boolean algebra and computer systems design. *Prerequisite, bachelor's degree with major in electrical engineering, mathematics, physics or equivalent*. 1956 FALL.
- 41.567 **ADVANCED DESIGN & USE OF MODERN COMPUTING MACHINERY² (2)** Contemporary advances in basic components, in logical design, and in automatic programming of computers. Specialized applications. *Prerequisite*, 41.566. 1957 SPRING.
- 41.568 **ELECTRONIC DIGITAL COMPUTER PROGRAMMING¹ (2)** Components of a general purpose computer, terminology, binary number system, computer words as numbers and instructions, single and multiple address logic, preparation of simple codes for various computers, sub-routines, analysis of problems for computers, scaled operations, flow diagrams, code checking techniques, solution of problems. *Prerequisite*, 41.221. 1957 FALL.
- 41.569 **ELECTRONIC DIGITAL COMPUTER PROGRAMMING² (2)** Advanced coding techniques, use of pseudo codes, interpretive routines, floating point operations, double precision operations, input conversion routines, service routines, automatic coding, various automatic coding systems now in use. *Prerequisite*, 41.568. 1958 SPRING.
- 41.574 **THEORY OF PROBABILITY¹ (4)** Foundations of theory of probability. Random variables. Distribution functions. Numerical characterizations of random variable by moments. Multivariate distributions. Generating and characteristic function. *Prerequisite*, 41.521. 1956 FALL.
- 41.575 **THEORY OF PROBABILITY² (4)** Special distributions, addition of independent random variables, Markoff chains, transition probabilities, ergodic properties, simple continuous Markoff processes, the Chapman-Smoluchowsky and Fokker-Planck equations. *Prerequisite*, 41.574. 1957 SPRING.
- 41.577 **INFORMATION THEORY (2)** Quantitative discussion of the amount of information in a message, and the rate at which information is communicated. Practical results for communication in the presence of noise. 1958 FALL.
- 41.582 **THEORY OF GAMES¹ (2)** Zero-sum two-person games in matrix form; existence, nature of good strategies, computation of solutions; linear programming; games in extensive form; games with infinite number of pure strategies; introduction to n-person games. *Prerequisite*, 41.510. 1958 FALL.
- 41.583 **THEORY OF GAMES² (2)** Linear programming; games in extensive form; games with an infinite number of pure strategies; an introduction to n-person games. *Prerequisite*, 41.582. 1959 SPRING.
- 41.611 **COMBINATORIAL ANALYSIS (2)** Permutations, combinations, recursion formulas, generating functions, symmetric functions, partitions, finite geometries, incidence matrices. Applications to Latin squares, Steiner triples, block diagrams, etc. *Prerequisite*, 41.511. 1958 FALL.
- 41.612 **INEQUALITIES (2)** Introduction to the precise thinking involved in mathematical analysis. Various proofs of the fundamental inequalities: arithmetic and geometric means, those of Schwarz, Holder, Minkowski, and Chebyshev. Convex functions. Inequalities involving quadratic and bilinear forms. *Prerequisite*, 41.521. 1959 SPRING.
- 41.613 **GALOIS THEORY (2)** Fundamental theorem of Galois theory, application of group theory to problems in theory of algebraic equations, especially solvability by radicals and ruler and compass constructions. *Prerequisite, some knowledge of group theory*. 1957 FALL.

- 41.620 **COMPLEX VARIABLES¹ (3)** Basic definition, necessary topological concepts, differentiation and integration of functions of a complex variable. Cauchy's theorem, Taylor and Laurent series, the elementary functions. *Prerequisite*, 41.521. 1957 FALL.
- 41.621 **COMPLEX VARIABLES² (3)** Calculus of residues, singularities, analytic continuation. Entire functions, conformal mapping, various special functions, periodic functions, multiple valued functions, Riemann surfaces. *Prerequisite*, 41.620. 1958 SPRING.
- 41.622 **REAL FUNCTIONS¹: THEORY OF POINT SETS (2)** Introduction to the theory of classes and point sets, including such topics as the general theory of sets and transfinite numbers; set function; Euclidean, metric, general topological spaces. *Prerequisite*, 41.521. 1956 FALL.
- 41.623 **REAL FUNCTIONS²: THEORY OF MEASURE (2)** Additive functions of a set. Outer measure. Measure. Inner measure. Transformations leaving measure invariant. Covering theorems. Non-measurable functions. Fundamental properties of Lebesgue integrals. Applications. *Prerequisite*, 41.622. 1957 SPRING.
- 41.624 **METHODS OF OPERATIONS RESEARCH (2)** The decision-making process; theories of decision; information theory; search theory; queuing theory. Applications of these theories and of other methods of mathematics to the physical and social sciences. *Prerequisite, permission of the instructor*. 1958 SPRING.
- 41.625 **CALCULUS OF VARIATIONS (2)** Problems of the calculus of variations. Euler equations. Natural boundary conditions. The second variation. Relative extrema and isoperimetric problems with variables and points. *Prerequisite*, 41.521. 1957 FALL.
- 41.626 **INTEGRAL EQUATIONS OF THE FIRST KIND (2)** Introduction and simple examples. Orthogonal systems of functions. Fourier's integral transform and related integral equations. General theory. Special types. Volterra integral equations of the first kind. *Prerequisite*, 41.521. 1958 FALL.
- 41.627 **INTEGRAL EQUATIONS OF THE SECOND KIND (2)** Integral equations of the Volterra type. Integral equations of the second kind with square integrable kernels. Applications to boundary-value problems. Integral equations of the Hermite type. Applications. *Prerequisite*, 41.626. 1959 SPRING.
- 41.628 **MODERN THEORY OF ORDINARY DIFFERENTIAL EQUATIONS (2)** Introduction to the qualitative theory of differential equations; stability criteria, existence of forced periodic solutions, perturbation methods. *Prerequisite*, 41.521. 1957 FALL.
- 41.629 **ORDINARY DIFFERENTIAL EQUATIONS: FUCHSIAN THEORY (2)** Existence theorem, equations with constant coefficients, equations with uniform analytic coefficients, regular singularities, Laplace transform, hypergeometric equations, Lamé's equations, Mathieu's equation. *Prerequisite*, 41.621. 1958 SPRING.
- 41.630 **THEORY & APPLICATIONS OF INTEGRAL TRANSFORMS¹ (2)** Laplace-Fourier-Hankel-Mellin and other transforms; boundary value problems. *Prerequisite*, 41.621. 1956 FALL.
- 41.631 **THEORY & APPLICATIONS OF INTEGRAL TRANSFORMS² (2)** Applications of integral transforms to boundary-value problems. Heat conduction and elasticity problems. Application to number theory. *Prerequisite*, 41.630. 1957 SPRING.
- 41.634 **PARTIAL DIFFERENTIAL EQUATIONS OF MATHEMATICAL PHYSICS¹ (2)** Partial differential equations in general; Gauss's function; boundary-value problems; eigenvalue and eigenfunction problems of electromagnetic and acoustic radiation. *Prerequisite*, 41.521. 1956 FALL.
- 41.635 **PARTIAL DIFFERENTIAL EQUATIONS OF MATHEMATICAL PHYSICS² (2)** Series expansions of arbitrary functions; vibration and eigenvalue problems; special functions defined by eigenvalue problems. *Prerequisite*, 41.634. 1957 SPRING.
- 41.710 **SEMINAR: ALGEBRA (2)** Research in algebra with special reference to work leading to numerical problems, particular attention being paid to the interests of students. *Prerequisite, permission of the instructor*. FALL.
- 41.720 **SEMINAR: ANALYSIS (2)** Recent research work in analysis, especially numerical analysis, particular attention being paid to the interests of students. *Prerequisite, permission of the instructor*. SPRING.
- 41.799 **THESIS SEMINAR IN MATHEMATICS (3-6)**

Music

Professor: JAMES L. McLAIN (Chairman). *Associate Professor:* GORDON SMITH.
Assistant Professors: GEORGE STEINER; EVELYN SWARTHOUT.

GRADUATE DEGREE—Master of Arts.

Course Requirements: Minimum of 30 hours of approved graduate work, which may include 6 hours of 43.799 Thesis Seminar-Music (3-6).

Written Comprehensive Examinations: 3, including one in music history, music literature, or composition; one in another of these fields; and one in a related field.

Other Requirements: Thesis or public recital of professional character and written research report in the fields of music history or literature related to the recital, or composition of a work in one of the larger forms of music and written analysis or public performance of the composition.

Graduate Courses

- 43.501 THE BAROQUE ERA (3)** Study of the thorough-bass period. Development of styles and technics leading to Bach and Handel, the culminating masters of the Baroque. FALL.
- 43.502 MUSIC OF THE 20th CENTURY (3)** Development of modernism in music from impressionism to the present. Schools, technics, trends. SPRING.
- 43.507 ANALYTICAL STUDIES IN MUSICAL LITERATURE (3)** Contrapuntal, harmonic, and structural analysis of music of various styles, forms, and media. May be repeated for credit. FALL AND SPRING.
- 43.601 RENAISSANCE MUSIC (3)** Study of role in the history of music with detailed analysis of representative works. FALL.
- 43.602 SEVENTEENTH CENTURY MUSIC (3)** Study of role in the history of music with detailed analysis of representative works. SPRING.
- 43.605 ADVANCED COMPOSITION (3)** Guidance in writing in specified large forms. Work adapted to individual needs and talents. May be repeated for credit. FALL. SPRING.
- 43.799 THESIS SEMINAR IN MUSIC (3-6)**

Psychology

Professors: CHARLES K. TRUEBLOOD (Chairman); ELLIS WEITZMAN. *Adjunct Professor:* JOHN L. ENDACOTT. *Assistant Professor:* CHARLES W. VAN WAY, JR. *Professorial Lecturers:* JOHN C. BALLOCH; KATHERINE P. BEARDSLEY; SEYMOUR BEARDSLEY; ALBERT C. CORNSWEET; GODFREY M. HOCHBAUM; GORDON L. LIPPITT; E. LAKIN PHILLIPS; ERNEST S. PRIMOFF; JOSEPH SAMLER. *Lecturers:* HARRY BORNSTEIN; HAROLD GOLDSTEIN; REUBEN S. HORLICK; ARTHUR KIRACOFÉ; MELVIN R. MARKS; LEONARD M. MILLER; BERTRAM W. STRAUSS.

GRADUATE DEGREES—Master of Arts in psychology and in guidance and counseling, Doctor of Philosophy in psychology.

MASTER OF ARTS DEGREE

Course Requirements: Minimum of 30 hours of approved graduate work, including 6 in 57.799 Thesis Seminar-Psychology (3-6).

Written Comprehensive Examinations: For the degree in psychology—3, including one in general psychology; one in a specialized field of psychology, such as social psychology, personality, measurement techniques, personnel psychology, developmental psychology, or counseling psychology; and one in another specialized field of psychology or in a related field. For the degree in counseling and guidance—3, including one in counseling psychology, one in psychological and educational measurements, and one in another specialized field of psychology or in a field of education.

Other Requirements: Thesis.

DOCTOR OF PHILOSOPHY DEGREE

Course Requirements: Minimum of 72 hours of approved graduate work, at least 30 of which must be completed at The American University.

Written Comprehensive Examinations: 5, including one in general psychology; one in social psychology; and three in specialized fields of psychology such as personality, measurement techniques, personnel psychology, developmental psychology, counseling psychology, or a related field.

Other Requirements: Proficiency examination in 2 research tools (languages or statistics), dissertation and oral examination on dissertation.

Graduate Courses

- 57.500 ADVANCED GENERAL PSYCHOLOGY (3)** Critical overview of major problems, methods, research findings in psychology. Basic course for all students interested in further work in psychology. *Prerequisite, one year of work in psychology or permission of the instructor.* 1957 FALL AND ALTERNATE YEARS.
- 57.501 ADVANCED EXPERIMENTAL PSYCHOLOGY (3)** Basic types of social-psychological research. Critical analysis of representative experiments with emphasis on formulation of research designs, choice of methodology, interpretation of results. 1957 SPRING AND ALTERNATE YEARS.
- 57.502 PHYSIOLOGICAL PSYCHOLOGY (3)** Neuro-physiological, endocrinological, and motor bases of action and learning. Lectures supplemented by demonstrations of brain and microscopic preparations. 1956 SPRING AND ALTERNATE YEARS.
- 57.503 THEORETICAL SYSTEMS OF PSYCHOLOGY (3)** Conceptual systems of psychology, involving consciousness, function, behavior, purpose, dynamism, gestalt, as they appear in the history of psychological thought. *Prerequisite, one year of work in psychology or permission of the instructor.* 1956 FALL AND ALTERNATE YEARS.
- 57.504 PSYCHOLOGICAL & EDUCATIONAL MEASUREMENTS¹; GROUP (3)** Administration, interpretation of group tests of intelligence, aptitude, achievement, interest, personality. *Prerequisite, one year of work in psychology or education. Introductory statistics recommended.* FALL, SPRING.

- 57.505 **PSYCHOLOGICAL & EDUCATIONAL MEASUREMENTS²: INDIVIDUAL INTELLIGENCE (3)** Extensive laboratory practice in the administration, scoring, interpretation of representative tests of intelligence that require individual administration. FALL. SPRING.
- 57.506 **ABNORMAL PSYCHOLOGY (3)** Deviations from normal behavior. Neurotic, psychotic, psychopathic personality. Disorders of sensation, perception, memory, motor control. Functional mental disorders. Principles of psychotherapy. SPRING.
- 57.507 **PSYCHOLOGY OF THE EXCEPTIONAL CHILD (3)** Characteristics of deviant children: the feeble-minded and the gifted; the hard of hearing and the deaf; the blinded and the blind; the emotionally disturbed. 1956 SPRING AND ALTERNATE YEARS.
- 57.508 **PSYCHOLOGY OF THE ADULT (3)** Critical survey of principles and research studies relating to the behavior of mature individuals. Psychological needs, group behavior, occupational fitness of adults. 1956 AND 1958 SUMMER.
- 57.510 **PROJECTIVE TECHNIQUES IN PSYCHOLOGY (3)** Examination of the theoretical bases of the projective techniques. Introduction to the principal projective methods used in the study of personality. SPRING.
- 57.515 **DYNAMICS OF GROUP BEHAVIOR: FUNDAMENTALS (3)** Interpersonal relations in group situations. Causal factors in group functioning. Functional roles of individuals in groups. Sociometric factors in group structure. FALL.
- 57.520 **BEHAVIOR PROBLEMS IN CHILDHOOD (3)** Psychological bases for normal and deviate behavior in children. Childhood problems from the standpoint of the psychologist. FALL.
- 57.521 **BEHAVIOR PROBLEMS IN ADOLESCENCE (3)** Psychological bases for normal and deviate behavior in adolescence. Adolescent problems from the standpoint of the psychologist. SPRING.
- 57.523 **PSYCHOLOGY OF PERSONALITY (3)** Development of wholesome personality. Individual traits, individual differences, modification of behavior patterns in personality; critical evaluation of research. Theories of personality. SPRING.
- 57.530 **PSYCHOLOGICAL ASPECTS OF INTERNATIONAL RELATIONS¹** Analysis of international human relations problems from the standpoint of psychology and other social sciences. Psychological studies of international phenomena. *Prerequisite, permission of department chairman.* FALL.
- 57.531 **PSYCHOLOGICAL ASPECTS OF INTERNATIONAL RELATIONS²** Analysis of major types of international program from the psychological and social science point of view: exchange of persons, economic development, technical assistance, Unesco. *Prerequisite, 57.530.* SPRING.
- 57.572 **PRINCIPLES & PRACTICES OF GUIDANCE (3)** Principles and methods of counseling in elementary and secondary schools. Organization, utilization of information as related to the pupil. Basic course for teachers and school administrators; beginning course for counselors. FALL.
- 57.573 **OCCUPATIONAL INFORMATION & THE EMPLOYMENT OUTLOOK (3)** Use of occupational information by teacher, school counselor, guidance worker, employment counselor, mature individuals who wish to utilize information for their own guidance. *Prerequisite, 57.572 or permission of the instructor.* 1956 FALL AND ALTERNATE YEARS.
- 57.574 **UNDERSTANDING THE INDIVIDUAL (3)** Development, organization, analysis of data related to the individual. Critical analysis of research related to interpretation of data about the individual. *Prerequisite, one course in psychological or educational measurement.* 1957 SPRING AND ALTERNATE YEARS.
- 57.575 **PSYCHOLOGY OF THE HANDICAPPED (3)** Psychology of the mentally and physically handicapped. Emotional, social problems and adjustment. Use, interpretation of psychological tests in the appraisal of the handicapped. 1955 SUMMER AND ALTERNATE YEARS.
- 57.600 **CLINICAL PSYCHOLOGY (3)** Survey of clinical methods. Description, psychopathology, therapy of behavior disorders. Lectures supplemented by presentations of appropriate types of patients. FALL.
- 57.604 **ADVANCED SOCIAL PSYCHOLOGY (3)** Psychological factors in human social behavior. Social aspects of perception, motivation, thinking, language, attitudes. Public opinion, propaganda, prejudice, intergroup tensions. *Prerequisite, permission of the instructor.* FALL. SUMMER.
- 57.605 **DYNAMICS OF GROUP BEHAVIOR: THEORY & RESEARCH (3)** Critical survey of the concepts, research findings, theory basic to the field of group dynamics. SPRING.
- 57.606 **PROBLEMS IN TEST CONSTRUCTION (3)** Preparation, use, evaluation of educational, personnel, attitude measurements. *Prerequisites, 57.504 and 69.200 Fundamentals of Statistics.* 1955 FALL AND ALTERNATE YEARS.
- 57.610 **APPLICATIONS OF PSYCHOLOGY TO INDUSTRY (3)** Applications of the experimental findings of scientific psychology to everyday problems and relationships of business and industry. SPRING.
- 57.670 **TECHNIQUES OF COUNSELING SCHOOL PUPILS (3)** Methods of counseling pupils on problems of personality development, school progress, educational and occupational choice. *Prerequisite, 57.574 or permission of the instructor.* SUMMER.
- 57.680 **RESEARCH METHODS AND PROFESSIONAL PROBLEMS IN PSYCHOLOGY** Principles, design, documentation, and reporting of research. Problems and professional ethics of psychologists in research and practice. *Prerequisite, advancement to candidacy for a graduate degree.* SPRING.

PSYCHOLOGY

- 57.691 PRACTICUM TRAINING (3)** Practice, under qualified supervision, in public or volunteer agencies, in technical procedures related to testing, therapy, similar activities of the professional psychologist. SPRING. FALL.
- 57.771 SEMINAR IN EMPLOYMENT COUNSELING (3)** Critical analysis of problems of employment counselors. Special reference to employment services of publicly supported employment agencies, schools, guidance centers. 1957 SPRING.
- 57.798 SEMINAR IN PSYCHOLOGY (3)** Directed research, reports, discussion on selected problems in various fields of psychology. SPRING.
- 57.799 THESIS SEMINAR IN PSYCHOLOGY (3-6)**

Sociology and Anthropology

Professors: ERNST CORRELL; FRANK LORIMER; AUSTIN VAN DER SLICE (Chairman). *Adjunct Professors:* HARRY ALPERT; EWAN CLAGUE; CORTLAND C. VAN VECHTEN; OSCAR WEIGERT. *Associate Professors:* ROBERT T. BOWER; HARVEY C. MOORE. *Assistant Professor:* JAMES H. FOX. *Professorial Lecturers:* HAROLD F. DORN; CLARK TIBBITTS; CAROLINE F. WARE. *Lecturers:* STANLEY BIGMAN; JOSEPH CASAGRANDE; LAWRENCE KRADER; BARKEV SANDERS; IVOR WAYNE.

GRADUATE DEGREES—Master of Arts, Doctor of Philosophy.

MASTER OF ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 65.799 Thesis Seminar-Sociology (3-6).

Written Comprehensive Examinations: 3, including one in sociological theory; one in methods of social research; and one selected from the fields of anthropology, population studies, social psychology, certain other specialized areas in sociology, or a related social science.

DOCTOR OF PHILOSOPHY

Course Requirements: Minimum of 72 hours of approved graduate work, 30 of which must be taken in residence at The American University.

Written Comprehensive Examinations: 5, including one in sociological theory; one in methods of social research; and 3 selected from the fields of anthropology, population studies, social psychology, certain other specialized areas in sociology, or a related social science.

Other Requirements: Proficiency examinations in two tools of research (French, German, another modern language, or statistics); dissertation and oral examination on dissertation.

Graduate Courses

SOCIOLOGICAL THEORY

- 65.510 CONCEPTS OF SOCIOLOGY** (3) Systematic survey, critical analysis of sociological concepts. Emphasis on theoretical systems. *Prerequisite*, 65.200. SPRING.
- 65.610 HISTORY OF SOCIOLOGICAL THEORY**¹ (3) Comparative study of major schools of sociological theory in France, Great Britain, U. S. *Prerequisite*, permission of the instructor. FALL.
- 65.611 HISTORY OF SOCIOLOGICAL THEORY**² (3) Comparative study of major schools of sociological theory in Germany, Austria, Italy. *Prerequisite*, permission of the instructor. SPRING.
- 65.711 SOCIOLOGICAL THEORY: SEMINAR** (3) Intensive study of selected area or school of sociological thought. Emphasis on research in source materials. *Prerequisite*, permission of instructor. 1957 SPRING AND ALTERNATE YEARS.

SOCIAL RESEARCH METHODS

- 65.512 SOCIAL RESEARCH METHODS**¹ (3) Research procedures in sociology with emphasis on survey design, collection of quantitative data. *Prerequisite*, 69.200. FALL.
- 65.513 SOCIAL RESEARCH METHODS**² (3) Research procedures in sociology with emphasis on analysis of quantitative data. *Prerequisite*, 65.512. SPRING.
- 65.515 ATTITUDE MEASUREMENT & RESEARCH** (3) Examination of various means of measuring attitudes and analyzing survey data. Actual empirical field work in opinion and attitude research studied. Emphasis on research methods. *Prerequisite*, 65.512. 1957 SPRING AND ALTERNATE YEARS.
- 65.516 RESEARCH METHODS IN MEDICAL CARE** (3) Application of research methods to problems of medical care in terms of personnel, need of facilities, costs, economic losses incident to ill health. *Prerequisite*, 65.562. 1956 FALL AND ALTERNATE YEARS.
- 65.691 IN-SERVICE TRAINING PROJECT** (3-6) Research project for limited number of qualified students working in government or private organizations in areas related to their degree program. Project under supervision of faculty and organization concerned. SUMMER. FALL. SPRING.

- 65.710 SOCIOLOGICAL METHOD: SEMINAR (3)** Translation of theories into research operations; supervised research experience for graduate students. *Prerequisite, permission of the instructor.* 1957 SUMMER AND ALTERNATE YEARS.
- 65.799 THESIS SEMINAR IN SOCIOLOGY (3-6)**

ANTHROPOLOGY

- 65.530 THEORY & METHODS OF CULTURAL ANTHROPOLOGY (3)** Anthropological theories of culture and society; their history, present status, influences. Methods pertinent to the theories. *Prerequisite, 65.201.* 1956 FALL AND ALTERNATE YEARS.
- 65.531 COMPARATIVE SOCIAL ORGANIZATION (3)** Anthropological approach to the comparative study of selected societies and varieties of social structure. *Prerequisite, 65.201.* 1957 FALL AND ALTERNATE YEARS.
- 65.532 PROCESSES OF CULTURE (3)** Dynamics of culture. Growth, development, stability in culture content, form, organization. Acculturation and nativistic movements. Assimilation and integration of ethnic groups. *Prerequisite, 65.201.* 1956 FALL AND ALTERNATE YEARS.
- 65.533 CROSS-CULTURAL ANALYSIS (3)** Contributions of cross-cultural analysis to an understanding of recurrent human problems such as bereavement, health, status changes. *Prerequisite, 65.201.* 1956 FALL AND ALTERNATE YEARS.
- 65.535 CULTURAL INFLUENCES UPON THE INDIVIDUAL (3)** Examination of anthropological studies concerning personality. Influences of culture upon the thoughts and actions of the individual and the resulting cultural patterns and configurations. SPRING.
- 65.537 LANGUAGE & CULTURE (3)** Cross-cultural consideration of language structure and behavior in relation to the rest of culture and to problems of culture pattern and change. *Prerequisite, 65.201.* 1957 FALL AND ALTERNATE YEARS.
- 65.538 APPLIED ANTHROPOLOGY (3)** Applications of concepts, approaches in anthropology to selected problems in government administration, industry, medicine and public health, technical assistance programs. *Prerequisite, 65.201.* 1956 SUMMER AND ALTERNATE YEARS.
- 65.539 CULTURE AREA ANALYSIS (3)** A selected culture area will be analyzed in terms of process, function, structure and development. *Prerequisite, 65.201.* FALL. SPRING.

SOCIAL ORGANIZATION

- 65.514 SOCIAL ASPECTS OF MASS COMMUNICATION (3)** Communication of ideas in modern society. Special attention to current empirical research on mass media in relation to sociological theory. 1957 SPRING AND ALTERNATE YEARS.
- 65.540 SOCIAL ORGANIZATION (3)** Basic social structure of modern society. Emphasis on American social organization. Integration of society; division of labor; consensus; stratification; institutional structure; role of social values. *Prerequisite, 65.200.* 1956 FALL AND ALTERNATE YEARS.
- 65.542 SOCIOLOGY OF POLITICAL ACTION (3)** Critical evaluation of recent theories of political sociology. Motivation in political behavior. Application of concepts of group participation from functional sociology and psychology. *Prerequisite, 65.200 and 53.200, American Government: National.* 1956 SPRING AND ALTERNATE YEARS.
- 65.545 AMERICAN COMMUNITIES (3)** Analysis of economic foundation, social and political structure, impact on individual personality of different types of American communities. Problems, processes of community organization. *Prerequisite, 65.200.* 1955 FALL AND ALTERNATE YEARS.
- 65.546 COLLECTIVE BEHAVIOR (3)** Analysis of crowd, mass, public behavior. Relationship to social movements of modern times. Role of leadership in various types of collective behavior. Factors, processes in emergence of social order. *Prerequisite, 65.200.* FALL.
- 65.547 SOCIAL STRATIFICATION (3)** Class status and power relationships in society. Critical analysis of theories and empirical research findings of current importance. *Prerequisite, 65.200.* 1956 SPRING AND ALTERNATE YEARS.
- 65.548 ETHNIC GROUP RELATIONS (3)** Sociological analysis of ethnic group relations. Critical survey of empirical studies. *Prerequisite, 65.200.* 1957 SPRING AND ALTERNATE YEARS.
- 65.549 SOCIOLOGY OF SCIENCE (3)** Science, as major institution in modern society: historical development, social organization, inter-relationships; social, cultural determinants of scientific activities; contributions from sociology of knowledge, invention, technology. *Prerequisite, 65.200.* 1956 SPRING AND ALTERNATE YEARS.
- 65.550 THE CITY (3)** Patterns and processes of urban society. The ecological and social organization of the modern city. Urban problems and trends. Emphasis on methods of research in the field. *Prerequisite, 65.200.* 1957 SPRING AND ALTERNATE YEARS.
- 65.580 MOVEMENTS & INSTITUTIONS OF EUROPEAN CHRISTIANITY (3)** Social forces in establishment of western Christendom. Medieval Catholic society. Emergence of Protestant movements, forms of piety, ethics, church policy, social orientation. Reaction to changing economic environments. 1956 SPRING AND ALTERNATE YEARS.
- 65.581 MOVEMENTS & INSTITUTIONS OF AMERICAN CHRISTIANITY (3)** Triumph of the free church movement, multifariousness of socio-religious manifestations, social role of revivalism, degrees of social activism, ecumenical objectives versus plurality of American Protestantism. 1957 SPRING AND ALTERNATE YEARS.

POPULATION AND ECOLOGY

- 65.551 ANALYSIS OF POPULATION TRENDS (3)** Growth, distribution of world population. Measurement and interpretation of mortality and fertility; intrinsic reproduction. Population estimates; age structure; labor force. International, internal migration. *Prerequisite, permission of the instructor.* FALL.
- 65.552 POPULATION PROBLEMS & POLICIES (3)** Economic effects of population changes; optimum population. Demographic aspects of international problems. Development of national population policies. Implications of population analysis: education, social security, housing. *Prerequisite, permission of the instructor.* SPRING.
- 65.554 MORBIDITY & MORTALITY ANALYSIS (3)** Sources of morbidity data, measurement of morbidity, morbidity tables, actuarial techniques in follow-up studies; life tables functions; biological aspects of life tables. *Prerequisite, 69.200.* 1957 SPRING AND ALTERNATE YEARS.

PUBLIC WELFARE

- 65.561 PUBLIC WELFARE: PRINCIPLES & PROBLEMS (3)** Principles underlying public welfare programs and major problems in the field. Organizational structure, methods of operation of federal, state, local agencies administering programs. *Prerequisite, permission of department chairman.* 1956 SUMMER AND ALTERNATE YEARS.
- 65.562 SOCIAL & ECONOMIC ASPECTS OF HEALTH (3)** Health problems in terms of expenditures, personnel, facilities, organization of adequate health service; public health practices; analysis of legislative proposals in the health field. *Prerequisite, permission of department chairman.* 1955 FALL AND ALTERNATE YEARS.
- 65.563 CAUSES OF CRIME (3)** Nature, causal factors in delinquent behavior. Natural history of delinquent careers. Programs and policies for controlling problems of delinquency and crime in urban areas. *Prerequisite, 65.200.* 1955 FALL AND ALTERNATE YEARS.
- 65.564 TREATMENT OF THE OFFENDER (3)** Practices, policies, programs for treatment of convicted offender; *alternatives to imprisonment:* probation, suspended sentence; *imprisonment:* jail, reformatory, penitentiary; *post-imprisonment:* parole, police surveillance, rehabilitative programs. *Prerequisite, 65.563.* 1956 SPRING AND ALTERNATE YEARS.
- 65.566 AGING IN MODERN SOCIETY (3)** Social, economic, health problems related to the aging process. Changing social roles, attitudes. Provision for the economic, health, psychological, social needs of the older person. 1957 FALL AND ALTERNATE YEARS.
- 65.567 URBAN REDEVELOPMENT (3)** Theory and practice of urban redevelopment. Causal factors of city blight and slums; efforts of public, private agencies. Planning, financial, social, legislative aspects of urban redevelopment. *Prerequisite, 65.200.* 1957 SPRING AND ALTERNATE YEARS.

Statistics

Professor: JOHN H. SMITH (Chairman); PAUL N. SOMERVILLE (Visiting, 1955-1957).
Adjunct Professors: ERNEST E. BLANCHE; JEROME CORNFELD; ERNEST RUBIN; WALT R. SIMMONS. *Professorial Lecturer:* SEYMOUR L. WOLFBEIN. *Lecturers:* SIDNEY BINDER; CHURCHILL EISENHART; MAX HALPERIN; ARDIE LUBIN; JOAN R. ROSENBLATT.

Degree Programs

GRADUATE DEGREES—Master of Arts, Doctor of Philosophy.

MASTER OF ARTS

Course Requirements: Minimum of 30 hours of approved graduate work, 6 of which may be in 69.799 Thesis Seminar-Statistics (3-6).

Written Comprehensive Examinations: 3, including one in statistical theory; and two chosen from the fields of applied statistics, a related social science, business or public administration, or mathematics.

Other Requirements: Thesis.

DOCTOR OF PHILOSOPHY

Course Requirements: Minimum of 72 hours of approved graduate work, 30 of which must be completed at The American University.

Written Comprehensive Examinations: 5, including two in fields of advanced statistical theory; and three selected from fields of applied statistics, related social science, business or public administration, and mathematics.

Other Requirements: Proficiency examinations in two tools of research (accounting, languages, mathematics); dissertation and oral examination on dissertation.

Graduate Courses

- 69.500 MATHEMATICAL STATISTICS (3)** Frequency and sampling distributions; simple sampling; binominal, Poisson, and normal probability functions; cumulants; bivariate distributions; tests of significance. *Prerequisite, a year of calculus and some work in elementary statistics.* SPRING.
- 69.502 CORRELATION ANALYSIS (3)** Simple, partial, multiple correlation; confidence intervals for simple and partial regression coefficients; estimates with minimum variance; tests of significance; graphic methods. *Prerequisite, some work in calculus and elementary statistics.* FALL.
- 69.504 ANALYSIS OF VARIANCE (3)** Statistical analysis of randomized block, Latin square, factorial experiments; degrees of freedom, tests of significance; incomplete blocks; unequal frequencies; confounding; analysis of covariance. *Prerequisite, a year of calculus and a year of statistics.* SPRING.
- 69.507 ENGINEERING STATISTICS ¹ (2)** General statistical methods for students with engineering or mathematics backgrounds. Averages, dispersion, correlation, sampling, analysis of variance. FALL.
- 69.508 ENGINEERING STATISTICS ² (2)** Continuation of 69.507, which is prerequisite to this course. SPRING.
- 69.510 THEORY OF SAMPLING ¹ (3)** Maximizing efficiency of sample surveys; stratification; types of sampling units; sub-sampling; double sampling; biased methods of selection and forms of estimate; precision and bias of results. *Prerequisite, some work in calculus and elementary sampling.* FALL.
- 69.511 THEORY OF SAMPLING ²: ADVANCED (3)** Advanced problems of sampling design. Cluster sampling, sub-sampling, types of costs; maximizing information per dollar; probability proportional to size, systematic sampling, restricted sample design. *Prerequisite, 69.510.* SPRING.
- 69.520 DESIGN OF SCHEDULES & SAMPLING PRACTICE (3)** Planning effective questionnaires for use by government, educational, and private agencies. Application to a sample survey planned and conducted by the class. 1957 SUMMER AND ALTERNATE YEARS.
- 69.530 MACHINE METHODS IN LARGE SCALE SURVEYS (3)** Efficient planning of large scale surveys, editing, checking, coding, tabulating, analysis by means of punched cards and mechanical tabulating equipment. *Prerequisite, a course in statistics or adequate experience.* FALL.
- 69.540 LABOR STATISTICS ¹: LABOR FORCE (3)** Critical analysis of information on occupational descriptions and classifications, industrial classifications, industrial censuses, employment, pay-rolls, absenteeism, unemployment. FALL.

- 69.541 LABOR STATISTICS²: WAGES & PRODUCTIVITY (3)** Wage rates, union scales, vacations, retirements. Prices and real wages. Sources, methods of collection, analysis, presentation. Application to labor problems. *SPRING*.
- 69.544 BIOMETRICS¹ (3)** Bioassay, diagnostic tests, etc. Problem formulation, experimental design, methods of analysis. *Prerequisite*, 69.504. 1957 FALL AND ALTERNATE YEARS.
- 69.545 BIOMETRICS² (3)** Continuation of 69.554, which is prerequisite to this course. 1958 SPRING AND ALTERNATE YEARS.
- 69.550 FACTOR ANALYSIS (3)** Description of a correlation matrix in terms of a small number of theoretical factors common to two or more observed variables: *Prerequisite*: Statistics through multiple correlation; matrix algebra desirable. *SPRING*.
- 69.570 QUALITY CONTROL IN MANAGEMENT (3)** Application of elementary statistical methods to control of quality of product or work output. *Prerequisite*, 69.200. 1956 FALL AND ALTERNATE YEARS.
- 69.571 SEQUENTIAL ANALYSIS (3)** Selection of observations singly or in groups until a hypothesis may be accepted or rejected with a specified risk. Emphasis on inspection problems. *Prerequisite*, a course in statistics with a calculus prerequisite. 1957 SPRING AND ALTERNATE YEARS.
- 69.572 DESIGN & INTERPRETATION OF EXPERIMENTS (3)** Characteristics of a good experiment; experimental designs and methods of analysis; maximizing precision of experiments. *Prerequisite*, 69.200 and advanced work in one of the sciences. 1956 SUMMER AND ALTERNATE YEARS.
- 69.573 STATISTICAL THEORY OF MEASUREMENTS (3)** Measurements, scales, direct versus indirect measurement. Limiting mean, true values, errors, mathematical and statistical convergence. Statistical techniques for detection and diagnosis of errors. Precision versus accuracy. *Prerequisite*, advanced work in statistical theory and in one of the sciences. 1956 FALL AND ALTERNATE YEARS.
- 69.575 ACCEPTANCE SAMPLING (2)** Review of catalogues of existing sampling plans. Principles of lot by lot sampling inspection by attributes and variables. Recent developments in attributes and variables sampling inspection. 1958 SPRING AND ALTERNATE YEARS.
- 69.600 ESTIMATION & TESTING HYPOTHESES (3)** Least squares, maximum likelihood, confidence intervals. Properties of statistics and criteria of estimation; alternative hypotheses and errors the first and second kinds; desirable properties of test criteria. *Prerequisite*, 69.502 and 69.504. FALL.
- 69.602 CHARACTERISTIC FUNCTIONS (3)** Use of characteristic functions to solve distribution problems in statistics. *Prerequisite*, advanced calculus and at least 6 hours in statistics with calculus prerequisite. 1957 FALL AND ALTERNATE YEARS.
- 69.604 STATISTICAL DECISION FUNCTIONS (3)** General problem of choosing a course of action without complete information; common problems of inference as special cases; Bayes solutions; randomized decisions; convex sets; minimax principle. *Prerequisite*, at least 6 hours in statistics with a calculus prerequisite. 1957 SPRING AND ALTERNATE YEARS.
- 69.606 NONPARAMETRIC STATISTICAL TECHNIQUES (3)** Introduction to distribution-free methods; medians and order statistics; tests based on permutations of observations; rank and sign tests. *Prerequisite*: Three statistics courses with calculus prerequisite. 1956 FALL AND ALTERNATE YEARS.
- 69.671 MATHEMATICAL PRINCIPLES OF EXPERIMENT DESIGN (3)** Least squares estimation of effects for various experimental designs; tests of significance; construction of designs by means of finite geometries and difference sets. *Prerequisite*, at least 6 hours in statistics with a calculus prerequisite. 1957 SPRING AND ALTERNATE YEARS.
- 69.680 ECONOMETRICS: STATISTICAL ANALYSIS OF TIME SERIES (3)** Estimation of parameters in dynamic models; alternative methods of studying related economic times series with relative advantages of each. *Prerequisite*, 69.502 and advanced work in economics. 1957 FALL AND ALTERNATE YEARS.
- 69.790 SEMINAR IN STATISTICAL THEORY (3)**
- 69.799 THESIS SEMINAR IN STATISTICS (3-6)**

List of Ph.D. Dissertations 1940-1956

- Adams, Quincy—Possible Revisions of Federal Agricultural Policies with Special Reference to the Brannan Plan (*Economics*, 1952)
- Adham, Mohammed I.—Special Problems of Government in the Arab States of the Middle East (*Political Science*, 1954)
- Alam, Abdel Raouf Abu—The Sudan in World Affairs, 1820-1956 (*International Relations and Organization*, 1956)
- Alcocer, Luis Reque—The Organization of American States with Special Reference to Problems of International Administration (*International Relations and Organization*, 1953)
- Alexander, A. John—The First World War in American Thought to 1929 (*History*, 1951)
- Allen, Edward Lawrence—The Aluminum Industry and the United States Government (*Economics*, 1948)
- Allen, Philip James—Upward Mobility within a Profession (*Sociology*, 1954)
- Aridi, Bashir A.—Parties and Politics in the Lebanese Society (*Government and Public Administration*, 1956)
- Ayoubi, Mohamed Sadek—A Central Bank for Syria (*Economics*, 1952)
- Bain, Chester Arthur—The History of Viet-Nam from the French Penetration to 1939 (*History*, 1956)
- Barber, Theodore Xenophon—The Relationship of "Drowsiness" and "Light Sleep" to the First, Second and Third States of Hypnosis (*Psychology*, 1956)
- Barnard, Bernard Lester—The Legislature of Kansas, An Appraisal (*Political Science*, 1949)
- Bass, Charles White—United States Policy Concerning Military Air Power in the Period to 1936 (*International Relations and Organization*, 1954)
- Beede, Kenneth Charles—Economic Analysis of Urban Housing (*Economics*, 1944)
- Blackstock, Paul William—Covert Political Warfare (*International Relations and Organization*, 1954)
- Blair, John M.—Labor Productivity and Industrial Prices (*Economics*, 1941)
- Bluestone, David W.—The Problem of Competition Among Domestic Trunk Airlines (*Economics*, 1953)
- Bornstein, Harry—Attitude Inconsistency and Scaling Methodology (*Psychology*, 1954)
- Brown, Donald Perl—The Administrative Budget of UNRRA (*Public Administration*, 1952)
- Browning, Rufus Charles—The Use of Scientific Findings by Marriage Counselors (*Psychology*, 1955)
- Bryan, Ernest Rowlett—An Administrative History of the U.S. Naval Photographic Center 1941-1951 with Recommendations for Reorganization (*Public Administration*, 1953)
- Burk, Monroe—Some Methodological Issues in the Determination of the Distributive Share of Labor (*Economics*, 1950)
- Bush, George Pollock—The General Staff Concept and Its Application in Public Administration (*Public Administration*, 1949)
- Cannon, M. Hamlin—The "Gathering" of British Mormons to Western America: A Study in Religious Migration (*History*, 1950)
- Chen, I Hsuan Julia—The Chinese Community in New York, 1920-1940: A Study in Cultural Adjustment (*Sociology*, 1942)
- Chung, Han-Pom—The Republic of Korea in Power Politics (*International Relations and Organization*, 1952)
- Colmen, Joseph G.—Objective Selection of Supervisory Personnel in Public Management (*Public Administration*, 1953)

- Colmen, Kenneth Seymour—A Quantitative Analysis of Scientific Research and Development in American Industry (*Economics*, 1956)
- Cooper, Joseph David—Decision-Making and the Action Process in the Department of State (*Public Administration*, 1951)
- Cottle, Sidney Charles—Our Flexible Tariff: A Study of the Nature of the Reciprocal Trade Agreements Program and, through a Case Study, a Measurement of Its Effectiveness (*Economics*, 1946)
- Crandall, Burton Benjamin—Nation-Wide Organization in the Intercity Bus Industry (*Economics*, 1955)
- Crawford, Arthur Whipple—Monetary Management under the New Deal: The Evolution of a Managed Currency System, Its Problems and Results (*Economics*, 1940)
- Criswell, Howard Donald—Urban County Government, a Survey of the Arlington County, Virginia, Government (*Government and Public Administration*, 1956)
- Cummins, William Edwin—The Wave Resistance of a Floating Slender Body (*Mathematics*, 1956)
- Dajany, Omar—The World Bank and The International Finance Corporation (*International Relations and Organization*, 1956)
- Daenecke, Eric—A Study of the United States General Accounting Office with Emphasis on the Period Since 1938 (*Public Administration*, 1950)
- Davis, Thomas Jefferson—The Impact of National Aggregates on Textile Fiber Consumption in the United States Since World War II (*Economics*, 1955)
- Dorsey, Emmett E.—The Evolution of the Concept of the Welfare State in the United States Since 1890 (*Political Science*, 1953)
- Dreis, Thelma Agnes—The Department of Agriculture's Sample Interview Survey as a Tool of Administration (*Public Administration*, 1950)
- Ducoff, Louis Joseph—Employment, Income, and Wages in Agriculture with Explorations of Production Function Techniques for Measuring Marginal Productivity of Labor and Capital in Agriculture (*Economics*, 1949)
- Eastin, Roy Brandon—The Supervision Improvement Program of the Government Printing Office (*Public Administration*, 1953)
- Eilers, R. M.—Postwar Western Germany, Aspects and Problems of Foreign Policy, 1945-1955 (*International Relations and Organization*, 1956)
- El-Adly, Ibrahim Khalil—Industrialization of Syria (*Economics*, 1952)
- El-Saghieh, Khaled Ibrahim—Nationalism in Morocco, A Study of Recent Developments with Special Reference to the Moroccan Question in the United Nations (*International Relations and Organization*, 1955)
- Enarson, Harold Leroy—"Fact-Finding" as a Technique for Settlement of National Emergency Labor Disputes (*Political Science*, 1951)
- Finnegan, Harold Ellsworth—Selected Indices of Manpower Management and an Interpretation of their Statistical Application in Portions of a Large Federal Mental Hospital, 1948-1951 (*Public Administration*, 1956)
- Flotow, Ernst—The Congress of German Economists, 1858-1885: A Study in German Unification (*Economics*, 1942)
- Fox, James Harold—The Church Self-Survey: A Methodological Inquiry (*Sociology*, 1956)
- Friend, Irwin—Volume and Composition of Individuals' Saving in the United States (*Economics*, 1953)
- Gaddis, Porter L.—Factors in the Appraisal of Rural Real Estate (*Economics*, 1940)
- Gasser, Robert Louis—The Confidence World as a Criminal Behavior System (*Sociology*, 1955)
- Gendebein, Albert W.—Commercial Relations Between the Kingdom of Sardinia and the United States of America 1820-1848 (*History*, 1951)
- Ghalayini, Khalil A.—A Plan for the Organization of an Arab Federation (*Public Administration*, 1956)

- Gilgash, Curtis Arnold—A Study of the Effects of Thorazine on the Social, Emotional, and Intellectual Functioning of Testable Institutionalized Adult Catatonic Schizophrenics (*Psychology*, 1956)
- Grover, Wayne Clayton—The Records Administration Program of the Department of War (*Public Administration*, 1946)
- Hartman, Grover Lowell—Brookston: A Study of the Cultural Evolution of an Indiana Agricultural Community, 1829-1940 (*History*, 1946)
- Hattery, Lowell Harold—Management of Social Science Research in the Federal Government: With Special Reference to the Division of Statistical and Historical Research, U. S. Department of Agriculture (*Public Administration*, 1951)
- Heath, Kathryn Gladys—Army Civilian Personnel Policy and Problems in the United States Zone of Germany with Special Reference to Indigenous Personnel, 1947-48 (*Public Administration*, 1951)
- Held, Walter George—The Budget Process of the District of Columbia (*Public Administration*, 1951)
- Hellner, Maurice Henry—United States Oil Import Policy (*Economics*, 1953)
- Hieronimus, George H.—Job Engineering—A Process for Manpower Utilization (*Public Administration*, 1952)
- Hoffman, H. Theodore—A History of Railway Concessions and Railway Development Policy in Columbia to 1943 (*History*, 1947)
- Hogenson, Palmer Tobias—Multiple Unit Banking (*Economics*, 1940)
- Housel, Jerry Winters—The Committee on Foreign Relations of the United States Senate (*International Relations and Organization*, 1941)
- Hunton, Benjamin L.—The Budget of the Department of War, 1922-1932 (*Public Administration*, 1954)
- Hutcheson, Maud Macdonald—Mercy Warren: A Study of Her Life and Works (*History*, 1951)
- Hutchins, John A.—Portugal and the Plata: The Conflict of Luso-Hispanic Interests in Southern Brazil and the North Bank of the Rio de la Plata, 1493-1807 (*International Relations and Organization*, 1953)
- Huyck, Earl Eugene—Population Growth in Ceylon (*International Relations and Organization*, 1956)
- John, Ralph Candler—Apostolic Succession as a Factor in Church Organization (*Public Administration*, 1950)
- Kaiser, Chester Carl—John Watson Foster: United States Minister to Mexico, 1873-1880 (*History*, 1954)
- Kane, John Ewing—The Original Cost Concept: An Additional Basis for Financial Reporting (*Economics*, 1950)
- Karch, John J.—Czech-Soviet Relations: 1938-1948 (*International Relations and Organization*, 1951)
- Katabi, Mohamed Adnan—Some Economic Aspects of Oil Investment in Iraq (*Economics*, 1955)
- Kerley, David Moorman—Banking and Monetary Issues in South Carolina Prior to 1800 (*Economics*, 1954)
- Key, Kerim K.—The Ottoman Intellectuals and the Young Turk Reformation of 1908 (*History*, 1950)
- Kianfar, Mehdi—Arab Unity and Collective Security of the Middle East (*International Relations and Organization*, 1956)
- Kindt, Lawrence Elliott—The Sheep Ranching Industry of Canada (*Economics*, 1940)
- Kliston, Theodore S.—Development of Common Stock Investment Media in the United States (*Economics*, 1956)
- Krieger, Joseph Leo—Executive Development for Effective Executive Performance and Executive Success (*Public Administration*, 1956)
- Latour, Conrad C. F.—Germany, Italy and the South Tyrol, 1938-1945 (*History*, 1956)

- Levine, David D.—The Executive Order: A Form of Presidential Participation in the Legislative Process (*Public Administration*, 1955)
- Levine, Milton—Reorganization Plans Submitted by the President to the 83d Congress (*Public Administration*, 1956)
- Lewis, Harold O.—Land Reform and Resettlement in Germany: A Study of the Post-War Programs for Rural Reconstruction, 1945-1950 (*History*, 1952)
- Lieb, Bernard—Government and Administration in the New India (*Public Administration*, 1953)
- Lieblein, Julius—A New Method of Analyzing Extreme-Value Data (*Mathematics*, 1953)
- Limmer, Ezekiel—The Agricultural Exemptions from Federal Motor Carrier Regulation (*Economics*, 1942)
- Link, Mae Mills—Kierkegaard's Way to America: A Study in the Dissemination of His Thought (*History*, 1951)
- Loasby, Roland—Lokamanya Bala Gangadhar Tilak, 1856-1920: His Reorientation of the Gita Tradition: A Factor in the Rise of Indian Nationalism (*History*, 1942)
- Lofton, Williston Henry—The Development of Public Education for Negroes in Washington, D.C.: A Study of "Separate but Equal Accommodations" (*Sociology*, 1945)
- Lyon, Robert—Intercontinental Air Travel: A Balance-of-Payments Factor (*Economics*, 1952)
- MacQuivey, Donald Ross—Frequency Assignment Administrative Control (*Public Administration*, 1956)
- Margrave, Robert N.—Policy of the United States Respecting the Development of International Adjudication (*International Relations and Organization*, 1950)
- Marshall, William Edgar—The Administrative Organization and Operation of the Food and Agriculture Organization of the United Nations, 1945-1951: A Critical Analysis (*International Relations and Organization*, 1951)
- Max, Alfred Raymond—Basic Factors in the Interpretation of Public Opinion Polls (*Public Administration*, 1942)
- McClellan, Willard Cave—A History of American Military Sea Transportation (*History*, 1953)
- McCoy, Donald Richard—New Party Politics in the New Deal Era: A Historical Study of Four Attempts to Form a New, National Political Party in the United States, 1929-1938 (*History*, 1954)
- Miller, Herman P.—Some Factors Affecting Personal Income Distribution in the United States (*Economics*, 1954)
- Montano, Severino Medina—The Administrative History of the American National Theatre and Academy (*Public Administration*, 1949)
- Naidel, Simon—On Some Aspects of the Theory of Differential Rent and Factor Surplus (*Economics*, 1951)
- Neel, Virginia Payne—Major Contributions of Brazil to the Theory and Practice of International Organization and Procedure from 1889-1949 (*International Relations and Organization*, 1951)
- Obern, Alfred Gaylord—Selected Regional International Organizations: A Comparative Study in International Administration (*Political Science*, 1955)
- Osterbind, Carter Clarke—An Appraisal of the Usefulness of Partial Equilibrium Theory in Marketing Research and Analysis (*Economics*, 1953)
- Pasha, Zahida Hamid—Ibn Khaldun, Sociologist: A Fourteenth Century Pioneer (*Sociology*, 1951)
- Patino, Abelardo—The Political Ideas of the Liberal and Conservative Parties in Columbia during the 1946-1953 Crisis (*Political Science*, 1955)
- Patrick, Arthur Shepard—An Analysis of the Duties and Responsibilities of the First-Line Office Supervisor in Government (*Public Administration*, 1956)

- Persh, Louis—An Analysis of the Agricultural Migratory Movements on the Atlantic Seaboard and the Socio-Economic Implications for the Community and the Migrants, 1930-1950 (*Sociology*, 1953)
- Perusse, Roland Irving—A Study of the Problems of Contemporary Germany (*International Relations and Organization*, 1955)
- Peters, Julius Melvin—The Relationship of Sociometric Ratings, Aptitude Scores, Scholastic Achievement, Athletic Achievement, and Other Background Factors to Proficiency of Performance (*Psychology*, 1954)
- Petrov, Victor P.—Manchuria as an Objective of Russian Foreign Policy (*International Relations and Organization*, 1954)
- Pinckett, Harold Thomas—Gifford Pinchot and the Early Conservation Movement in the United States (*History*, 1953)
- Pincus, Joseph—The Foreign Economic Policies of Brazil Since 1939 (*International Relations and Organization*, 1953)
- Poffenberger, Paul Routzahn—Problems of Security for Farmers in the United States with a Case Study on the Extension of Social Security to Farmers in Maryland (*Economics*, 1953)
- Power, Richard Lyle—Upland Southerner and Yankee in the Old Northwest: A Study in Cultural Adjustment (*History*, 1946)
- Ratliff, Bob Roy—The Defense Production Act of 1950: An Administrative Study (*Public Administration*, 1953)
- Raymond, Edward Ashwell—The Juridical Status of Persons Displaced from Soviet and Soviet-Dominated Territory (*International Relations and Organization*, 1952)
- Redfield, Arthur Huber—Our Petroleum Diplomacy in Latin America (*Economics*, 1942)
- Rodgers, Philip Ray—Rent Control in the Emergency Price Program (*Political Science*, 1947)
- Rosen, Howard—Technicians in Industry: A Manpower Study of Semiprofessional Occupations (*Economics*, 1956)
- Rutherford, Geddes William—Some Problems in Government and Administration in the Washington (D.C.) Metropolitan Area (*Political Science*, 1946)
- Sander, Aldred D.—The Political and Social Views of William Howard Taft (*History*, 1955)
- Schechter, Henry B.—The Role of the Consumption Function in Business Cycles in the United States (*Economics*, 1951)
- Shenefield, Hale T.—Post-War External Economic Problems of the United Kingdom (*Economics*, 1951)
- Skillington, James Edgar—Proposed Modifications in Congressional Participation in the Budgetary Process, 1946-1950 (*Public Administration*, 1951)
- Skolnik, Alfred Milton—The Role of Government in Providing Cash Benefits for Temporary Disability (*Government*, 1956)
- Smith, Harold David—Consumer Demand for Agricultural Products: Del-Mar-Va Broilers (*Economics*, 1952)
- Smith, Paul F.—Installment Credit and Business Fluctuations in the United States from 1929 to 1954 (*Economics*, 1955)
- Sonnino, Mario Anthony—Cost Elements of Domestic and International Air Transportation (*Economics*, 1949)
- Spencer, Daniel Lloyd—Mixed and Joint Corporations as Tools of Economic Development: A Case Study Based on India's Experiments in New Types of Enterprise (*Economics*, 1953)
- Sprunger, James Amstutz—Measuring the Capacity of the Individual for Contributing to His Group (*Psychology*, 1956)
- Strahan, James Russell—The Legal Status of Public-Owned Foreign Property in the Courts of the United States (*International Relations*, 1946)

- Sundstrom, John Walker—An Analysis and Evaluation of the Recommendations Relative to Personnel Management by the Commission on Organization of the Executive Branch of the Government (*Public Administration*, 1950)
- Tabibi, Abdul Hakim—Aftermath Created by British Policy in Respect to Afghanistan-Pakistan Relations (*International Relations and Organization*, 1955)
- Turano, Peter Joseph—Hawley-Smoot Tariff Legislation: A Study in Legislative Process (*Political Science*, 1951)
- Wadsworth, Lawrence W.—A Short History of the Tokyo War Crimes Trials with Special Reference to Some Aspects of Procedure (*International Relations and Organization*, 1955)
- Whiting, Albert Nathaniel—The United House of Prayer for All People: A Case Study of a Charismatic Sect (*Sociology*, 1952)
- Wichiencharoen, Adul—The Impact of Aviation on the Conception of Territorial Sovereignty (*International Relations and Organization*, 1954)
- Williams, Chancellor—The Socio-Economic Significance of the Store-Front Church Movement in the United States Since 1920 (*Sociology*, 1949)
- Williams, Lorraine Anderson—The Civil War and Intellectuals of the North (*History*, 1955)
- Wood, Marie Viola—Agricultural Development and Rural Life in Haiti, 1934 to 1953 (*History*, 1955)
- Wood, Thomas L.—Training and Utilization of Personnel with Marginal Intelligence by the United States Air Force (*Public Administration*, 1954)
- Woods, Irving Arro—An Experimental Investigation of the Relationship Between Personal Insight and Social Insight (*Psychology*, 1954)
- Yalem, Ronald J.—The East-West Trade Control Program: A Defense of the Battle Act (*International Relations and Organization*, 1956)
- Yunus, K.—Indonesian Independence: Developments and Sequel (*International Relations and Organization*, 1954)

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